Access DB# 72437

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: R GITOMER Examiner #: 69630 Date: 8/2/02
Art Unit: 1627 Phone Number 30 8-0732 Serial Number: 10/362,288
Mail Box and Bldg/Room Location: 3B19 7A11 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

RECEIVED
AUG - 2 2002
TECH CENTER 1600/2900

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

43 +

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STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: D. Schreiber	NA Sequence (#)		STN	
Searcher Phone #: 308-4292	AA Sequence (#)		Dialog	421.82
Searcher Location: CM1 6A03	Structure (#)		Questel/Orbit	
Date Searcher Picked Up: 8/5	Bibliographic	✓	Dr.Link	
Date Completed: 8/8	Litigation		Lexis/Nexis	
Searcher Prep & Review Time: 37	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time: 74	Other		Other (specify)	

PTO-1590 (8-01)

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show files
File 155:MEDLINE(R) 1966-2002/Aug W1
File   5:Biosis Previews(R) 1969-2002/Aug W1
         (c) 2002 BIOSIS
File 315:ChemEng & Biotec Abs 1970-2002/Jun
         (c) 2002 DECHEMA
File  73:EMBASE 1974-2002/Aug W1
         (c) 2002 Elsevier Science B.V.
File 399:CA SEARCH(R) 1967-2002/UD=13706
         (c) 2002 AMERICAN CHEMICAL SOCIETY
File 351:Derwent WPI 1963-2002/UD,UM &UP=200250
         (c) 2002  Thomson Derwent
?ds

Set     Items   Description
S1       1791   DRY (3N) (MEDIUM OR MEDIA)
S2      52203   (ENVIRONMENT? OR WATER)(3N) SAMPLE? ?
S3     724823   SELECTIVE
S4          4   S1 AND S2
S5          3   RD S4 (unique items)
S6    4588765   (BACTERI? OR MICROB? OR YEAST? ? OR FUNGUS OR FUNGI)
S7        491   S1 AND S6
S8         16   S7 AND S3
S9         15   RD S8 (unique items)
S10        17   S5 OR S9
S11         2   S10 AND DRY(3N) MILK
?t 10/7/all

 10/7/1      (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08759691   96119728   PMID: 8561730
  Comparison of environmental monitoring protocols for the detection of
Salmonella in poultry houses.
  Davison S; Benson C E; Eckroade R J
  Laboratory of Avian Medicine and Pathology, University of Pennsylvania,
Kennett Square 19348, USA.
  Avian diseases (UNITED STATES) Jul-Sep 1995, 39 (3) p475-9, ISSN
0005-2086   Journal Code: 0370617
  Document type: Journal Article
  Languages: ENGLISH
  Main Citation Owner: NLM
  Record type: Completed
  Environmental monitoring has been used as a screening method to detect
Salmonella enteritidis infection in laying hens. Several transport
protocols (buffered peptone water, skim milk, asparagine, double distilled
water, and no media), to be used for the detection of Salmonella in
 environmental samples from poultry houses, were compared for their
ability to preserve the integrity of specimens. The isolation rates of
Salmonella using the various transport protocols, including double-strength
skim milk and no media ( dry ), were similar. Use of dry swabs is more
convenient than a media transport system and should be adopted as an
alternative method.
  Record Date Created: 19960227

 10/7/2      (Item 2 from file: 155)
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DIALOG(R)File 155:MEDLINE(R)

03982947 82243522 PMID: 6178894
Comparative study of dry selective nutrient media for isolating Pseudomonas aeruginosa from the environment]
Sravnitel'noe izuchenie sukhikh selektivnykh pitatel'nykh sred dlia vydeleniia sinegnoinoi palochki iz vneshnei sredy.
Raku V D; Moroz A F; Bekbergenov B M
Laboratornoe delo (USSR) 1982, (5) p308-9, ISSN 0023-6748
Journal Code: 18230140R
Document type: Journal Article ; English Abstract
Languages: RUSSIAN
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19820924

10/7/3 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

08905132 BIOSIS NO.: 199396056633
Nutrient utilization in liquid/membrane system for watermelon micropropagation.
AUTHOR: Desamero Nenita V; Adelberg Jeffrey W; Hale Andrew; Young Roy E(a); Rhodes Billy B
AUTHOR ADDRESS: (a)Dep. Agric. Biol. Eng., Clemson Univ., Clemson, South Carolina, USA 29634
JOURNAL: Plant Cell Tissue and Organ Culture 33 (3):p265-271 1993
ISSN: 0167-6857
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Watermelon (Citrullus lanatus (Thunberg) Matsumura and Nakai) proliferating shoot meristems from established shoot cultures were inoculated on modified Murashige and Skoog salts medium supplemented with 10 mu-M 6-benzyladenine (BA) for shoot proliferation and on similar medium supplemented with 1 mu-M BA and 10 mu-M gibberellic acid (GA-3) for shoot elongation. Agar-solidified medium and microporous polypropylene membrane rafts in liquid medium were used to support the tissues. Growth over culture time of proliferating and elongating tissues in liquid and agar-solidified media were compared. Nutrient depletion in liquid medium was monitored and quantified using ion selective electrodes. Tissue fresh weights in both proliferation and shoot elongation media were greater in liquid than in agar-solidified medium . Relative dry matter content, however, was greater in agar-solidified than in liquid medium. More shoots elongated in agar-solidified than in liquid medium. The numbers of buds or unelongated shoot meristems, however, were comparable for both the liquid and agar-solidified medium. Proliferating and elongating tissues in liquid medium used Ca++ and K+ minimally. NO-3- was utilized but not depleted by proliferating tissues. NH-4+, however, was depleted. Most of the NH-4+ was utilized by the proliferating tissues within 21 days of culture when growth rate was greatest. At 35 days, residual Ca++, K+, NO-3-, and NH-4+ in proliferation medium were 81.0%, 67.8%, 55.7%, and 1.2% of initial levels, respectively. NO-3- and NH-4+ in shoot elongation medium were

depleted. The greatest NO-3- and NH-4+ utilization was observed during the first 14 days of culture when the largest growth rate was obtained. The residual Ca++, K+, NO-3-, and NH-4+ in shoot elongation medium at 38 days were 63.5%, 37.9%, 21.2%, and 24.3% of initial concentrations, respectively. At the end of experiment, 72.3% and 42.8% of initial sugars were still remaining in the shoot proliferation and shoot elongation medium, respectively.

10/7/4 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

08310236 BIOSIS NO.: 000094072559
A DIFFERENTIAL- SELECTIVE MEDIUM AND DRY ICE-GENERATED ATMOSPHERE FOR RECOVERY OF CAMPYLOBACTER-JEJUNI
AUTHOR: STERN N J; WOJTON B; KWIATEK K
AUTHOR ADDRESS: AGRIC. RES. SERV., U.S. DEP. AGRIC., RICHARD B. RUSSELL AGRIC. RES. CENTER, POULTRY MICROBIOL. SAFETY RES. UNIT, P.O. BOX 5677, ATHENS, GA. 30613.
JOURNAL: J FOOD PROT 55 (7). 1992. 514-517. 1992
FULL JOURNAL NAME: Journal of Food Protection
CODEN: JFPRD
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A selective -differential medium for isolation of Campylobacter jejuni from chicken carcasses was developed. The medium, Campy-Cefex, consisted of Brucella agar, 5% lysed horse blood, 0.05% ferrous sulfate (FeSO4.7H2O), 0.05% sodium pyruvate, 0.02% sodium bisulfite, and antibiotic supplements of 33 mg/L sodium cefoperazone and 200 mg/L cycloheximide. A total of 41 chicken carcass samples were plated onto Campy-Cefex, Campylobacter cefoperazone desoxycholate agar, and Campylobacter brucella agar plate media. Campy-Cefex proved as productive and selective as the other media. Campy-Cefex allowed for easier differentiation of C. jejuni from other flora compared to differentiation on Campylobacter cefoperazone desoxycholate agar medium. Differentiation of the non-Campylobacter spp. flora from Campylobacter spp. was the same on both Campy-Cefex and Campy-BAP. The selectivity for the organism on Campy-Cefex was better than on Campy-BAP. Growth of seven isolates of C. jejuni in microaerobic (5% O2, 10% CO2, 85% N2) and dry ice-generated atmospheres was also assessed. After 24 h of incubation, the mean log10 CFU generated, using the same culture suspensions and medium, was 2.07 and 1.81 for the microaerobic and dry ice atmospheres, respectively. These two developments allow for simplification of materials and methods required to isolate C. jejuni from foods.

10/7/5 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

07709619 BIOSIS NO.: 000092045400
CHARACTERIZATION OF EPIPHYTIC XANTHOMONAS-CAMPESTRIS PATHOVAR PHASEOLI AND PECTOLYTIC XANTHOMONADS RECOVERED FROM SYMPTOMLESS WEEDS IN THE DOMINICAN REPUBLIC WEST INDIES
AUTHOR: ANGELES-RAMOS R; VIDAVER A K; FLYNN P

AUTHOR ADDRESS: DEP. PLANT PROT., S.E.A., C.E.S.D.A., SAN CRISTOBAL, DOMINICAN REPUBLIC.
JOURNAL: PHYTOPATHOLOGY 81 (6). 1991. 677-681. 1991
FULL JOURNAL NAME: Phytopathology
CODEN: PHYTA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Xanthomonas campestris pv. phaseoli and pectolytic xanthomonads were isolated from symptomless weeds collected inside and adjacent to fields of dry edible beans (Phaseolus vulgaris) showing common blight symptoms in the Dominican Republic. Strains of X. c. phaseoli were identified on the basis of characteristic yellow colony pigmentation; starch hydrolysis on the semi- selective medium MXP; pathogenicity on dry bean leaves and pods; absence of extracellular melanin 'fuscans' pigment on modified nutrient broth yeast extract and King's medium B; and isolation of xanthomonadin pigment with a characteristic Rf value of 0.45 determined by thin-layer chromatography. Pectolytic xanthomonads also had most of the aforementioned properties, except that they failed to induce disease on leaves leaves, caused an atypical incompatible response on bean pods, showed strong pectolytic activity on crystal violet pectate medium, and grew at 4 C on yeast extract-dextrose-calcium carbonate medium. Single-dimension polypeptide analysis of cellular proteins by polyacrylamide gel electrophoresis showed that the two groups of bacteria were distinctly different in their overall profiles. The percentage of pathogenic strains from 77 weed samples was 22% of the 132 strains collected. The majority of the pathogenic strains (91%) were recovered from inside infected bean fields. These results suggest that weeds may not be an important inoculation source for the common blight bacterium , but that they could serve as a reservoir of inoculum and harbor atypical xanthomonads of unknown function as well.

06674130 BIOSIS NO.: 000087116307
CLINICAL AND LABORATORY TRIALS OF A DRY DIFFERENTIAL DIAGNOSTIC MEDIUM FOR NONFERMENTING GRAM-NEGATIVE BACTERIUM
AUTHOR: KUSHIEVA T G; BEKBERGENOV B M; MOROZ A F; MEDZHIDOV M M; VARTANYAN ZH S
AUTHOR ADDRESS: RES. INST. CULT. MEDIUM, MINIST. HEALTH USSR, MAKHACHKALA, USSR.
JOURNAL: LAB DELO 0 (10). 1988. 62-63. 1988
FULL JOURNAL NAME: Laboratornoe Delo
CODEN: LABDA
RECORD TYPE: Abstract
LANGUAGE: RUSSIAN

ABSTRACT: Trials of this medium intended for isolation and identification of nonfermenting gram-negative bacteria from clinical material have demonstrated higher selective characteristics of this medium vs. McConkey's, Endo's and Levine' media, this explaining the higher isolation rate of nonfermenting gram-negative bacteria , mainly Pseudomonas aeruginosa and Acinetobacter. The growth of gram-positive

microorganisms (the cocci group) and of yeast -like fungi is completely suppressed by this medium. No creeping growth of Proteus strains in this medium and the possibility of differentiating between nonfermenting gram-negative bacteria from the color of the colonies considerably simplify the isolation of pure cultures for their further identification with the use of automated microbiologic systems (MIK-2000 and MS-2) or of commercial test systems (of the API or Enterotube type) for enterobacteria and nonfermenting gram-negative bacteria .

10/7/7 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06651929 BIOSIS NO.: 000087094106
THE INFLUENCE OF THE WATER-ACTIVITY OF CULTURE MEDIA ON THE ISOLATION RATE OF FUNGI FROM HOUSE DUST
AUTHOR: SCHOBER G
AUTHOR ADDRESS: LAB. VOOR ECTOPARASITOL. EN WOONMILIEU, ACADEMISCH ZIEKENHUIS, CATHARIJNESINGEL 101, NL-3511 GV UTRECHT, NIEDERLANDE.
JOURNAL: MYCOSES 31 (5). 1988. 255-258. 1988
FULL JOURNAL NAME: Mycoses
CODEN: MYCSE
RECORD TYPE: Abstract
LANGUAGE: GERMAN

ABSTRACT: Fungi from 22 floor dust samples were isolated on malt agar media containing 64% sucrose (water-activity aw = 0.82) or 40% sucrose (aw = 0.94). Fungal development on both substrates was compared. Our results confirm the selective properties of the 64% sucrose medium for allergologic important xerophilic fungi . No hydrophilic moulds could be isolated. On the 40% sucrose medium more species occurred. Here xerophilic fungi developed just as well as on the dry medium or even better probably since competition from hydrophilic species was absent. In seasons with dryer climatic conditions, such as autumn and winter, when mesohygrophilic and hydrophilic fungi are less abundant, the substrate with the higher water-activity (aw = 0.94) should preferably be used for the isolation of house dust fungi from floor dust. This medium reflects the qualitative and quantitative content of the dust better than the dry substrate (aw = 0.82) does.

10/7/8 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04274635 BIOSIS NO.: 000078004177
A PRACTICAL METHOD FOR DIFFERENTIATING THE SALIVARY LEVELS OF STREPTOCOCCUS-MUTANS USING A STABILIZED SELECTIVE BROTH
AUTHOR: MATSUKUBO T; SAITO H; OHTA K; MAKI Y; SAZUKA J-I; TAKAESU Y; TAKAZOE I; ASAMI K
AUTHOR ADDRESS: DEP. OF PREVENTIVE AND COMMUNITY DENTISTRY TOKYO DENTAL COLL., 1-2-2, MASAGO, CHIBA 260, JPN.
JOURNAL: BULL TOKYO DENT COLL 24 (4). 1983 (RECD. 1984). 195-202. 1983
FULL JOURNAL NAME: Bulletin of Tokyo Dental College
CODEN: BTDCA

RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A simple and practical method for differentiating salivary levels of S. mutans was developed for screening high caries risk patients. The major advantage of this method is that improved Mitis Salivarius Bacitracin broth (I-MSBB) is supported with the perishable ingredients in a dry state. This medium permits storage without deterioration for 8 mo. Other advantages of this method are small sample volume, short incubation time (24 h), aerobic culture, no transport medium, no dilution procedures and no specialized training of personnel for handling and scoring necessary. This method can be used in dental offices, in community dental health programs and for epidemiological studies.

10/7/9 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03004352 BIOSIS NO.: 000070029970
RECOVERY OF SALMONELLA FROM MILK CHOCOLATE USING A CHEMICALLY DEFINED MEDIUM AND 5 NONDEFINED BROTHS
AUTHOR: WILSON C R; ANDREWS W H; POELMA P L
AUTHOR ADDRESS: DIV. MICROBIOL., FOOD DRUG ADM., WASHINGTON, D.C. 20204, USA.
JOURNAL: J FOOD SCI 45 (2). 1980. 310-313, 316. 1980
FULL JOURNAL NAME: Journal of Food Science
CODEN: JFDSA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The efficiency of various pre-enrichment media for recovering Salmonella from milk chocolate was determined for the minimal, chemically defined M-9 medium and for nonfat dry milk with brilliant green dye (NFDM-BG), NFDM with crystal violet dye, lactose broth, trypticase soy broth and buffered peptone water (BPW). Pre-enrichment in NFDM-BG or BPW, incubated at 35.degree. C, consistently gave the highest Salmonella MPN [most probable number]. Incubation of these pre-enrichment media or the 2 selective enrichment media, selenite cystine and tetrathionate, at 43.degree. C resulted in lower Salmonella recoveries. Use of the optimal enrichment and incubation conditions established for recovering Salmonella from milk chocolate resulted in more effective recovery of nonstressed cells than heat-stressed cells from a variety of chocolate and chocolate-substitute products.

10/7/10 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

01271737 EMBASE No: 1978405204
Selective cultivation of enterococci from food of animal origin
SELEKTIVE KULTIVIERUNG VON 'ENTEROKOKKEN' AUS LEBENSMITTELN TIERISCHER HERKUNFT
Reuter G.
Fachricht. Fleischhyg., Inst. Lebensmittelhyg. Fleischhyg. Technol., Freie Univ., Berlin Germany

Archiv fur Lebensmittelhygiene (ARCH. LEBENSMITTELHYG.) (Germany) 1978 , 29/4 (128-131)
CODEN: ALMHA
DOCUMENT TYPE: Journal
LANGUAGE: GERMAN SUMMARY LANGUAGE: ENGLISH

For selective cultivation of the enterococcus group a great number of media with different compositions has already been described. The decision for one or the other is influenced by the aim of cultivation, whether the 'enterococci in strict sense' or 'group D-streptococci' or 'fecal streptococci' is to be looked for. Also the composition of the accompanying flora is of importance. This flora varies on a large scale in food of animal origin qualitatively as well as quantitatively. Personal stimulation and experience also seem to be important for the decision for a medium. In experiments within a long time period 7 different media were tested, occasionally with laboratory strains, and partly in routine investigation. The predominating claim was the identification of enterococci from meat and meat products. The following media which are obtainable commercially as dry media in most cases were tested: ABA = aesculine-bile-azide-agar (Isenberg et al., 1970) KAA = kanamycin-aesculine-azide-agar (Mossel. 1976) CATC = citrate-azide-tween-carbonate-agar (Reuter, 1968) ME = M-enterococcus-agar (Slanetz and Bartley, 1957) TA = thallous-acetate-agar (Barnes, 1956) Sc S = streptococci- selective -agar (Merck) KA = crystal violet-azide-agar (Packer, 1943). A medium without limitations still does not exist. CATC and KAA are estimated as suitable for most purposes of enterococci cultivation and identification. The preference for one or the other may depend on personal and substrate related arguments.

10/7/11 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

96139457 CA: 96(17)139457e CONFERENCE PROCEEDING
A dry nutritive medium for primary enterobacterial differentiation (Kligler type medium)
AUTHOR(S): Gorchenina, L. V.
LOCATION: Mosk. Inst. Vaktsin Syvorot., Moscow, USSR
JOURNAL: Razrab. Stand. Bakteriol. Pitatel'nykh Sred EDITOR: Semenov, B. F. (Ed), Raskin, B. M (Ed), DATE: 1980 PAGES: 124-30 CODEN: 47IXA8
LANGUAGE: Russian PUBLISHER: Mosk. Nauchno-Issled. Inst. Vaktsin Syvorotok im. I. I. Mechnikova,Moscow, USSR
SECTION:
CA110002 Microbial Biochemistry
IDENTIFIERS: enteric bacteria differentiation culture medium, Enterobacteriaceae differentiation culture medium
DESCRIPTORS:
Culture media,selective...
for enteric bacteria
Bacteria,intestinal...
isolation and differential identification of
Enterobacteriaceae...
isolation and identification of, differential culture medium for

10/7/12 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

81132722 CA: 81(21)132722u JOURNAL
Stability of some antibiotics in nutrient media
AUTHOR(S): Kocherovskaya, E. Yu.; Givental, N. I.
LOCATION: Cent. Postgrad. Med. Inst., Moscow, USSR
JOURNAL: Antibiotiki (Moscow) DATE: 1974 VOLUME: 19 NUMBER: 8 PAGES: 756-8 CODEN: ANTBAL LANGUAGE: Russian
SECTION:
CA910013 Microbial Biochemistry
IDENTIFIERS: culture medium selective antibiotic stability, methicillin stability selective medium, lincomycin stability selective medium, ristomycin stability selective medium
DESCRIPTORS:
Culture media...
dry agar selective, antibiotic stability in
CAS REGISTRY NUMBERS:
61-32-5 154-21-2 11006-74-9 stability of, in dry agar selective culture media

10/7/13 (Item 1 from file: 351)
DIALOG(R)File 351:Derwent WPI

014349740
WPI Acc No: 2002-170443/200222
Method of isolation of lactobacillus genus bacterium from clinical material
Patent Assignee: NOVOK DOCTORS TRAINING INST (NKDO-R)
Inventor: BLINOV A I; DVORETSKII B M; GLUSHANOVA N A
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
RU 2178171	C1	20020110	RU 2000119999	A	20000726	200222	B

Priority Applications (No Type Date): RU 2000119999 A 20000726
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
RU 2178171	C1			G01N-033/48	

Abstract (Basic): RU 2178171 C1

NOVELTY - Accumulation of bacteria of genus Lactobacillus from clinical material is performed at 39 degrees Centigrade in selective liquid nutrient enrichment medium in the following ratio of medium components.

DETAILED DESCRIPTION - Accumulation of bacteria of genus Lactobacillus from clinical material is performed at 39 degrees Centigrade in selective liquid nutrient enrichment medium in the following ratio of medium components g/l: dry enzymatic hydrolyzate of defatted milk; 30.0 plusmn; 3.0; glacial acetic acid, 3.4 plusmn; 0.1; concentrated yeast autolysate, 110.0 plusmn; 10.0; agar, 0.8; distilled water, up to 1 l; 20% sodium hydroxide solution, to pH value of medium 5.4 plusmn; 0.1. Then lactobacilli are isolated in solid selective nutrient medium in the following ratio of medium components, g/l: dry enzymatic hydrolyzate of defatted milk, 30.0 plusmn; 3.0; glacial acetic acid, 3.4 plusmn; 0.1; concentrated yeast

autolysate, 110.0 plusmn; 10; agar, 22.5 plusmn; 2.5; distilled water, up to 1 l; 20% sodium hydroxide solution, to pH value of medium 5.4 plusmn; 0.1. Invention can be used for selective isolation of bacteria of genus Lactobacillus from clinical material (feces, vaginal secretion).

USE - Medicinal microbiology .

ADVANTAGE - Enhanced effectiveness, simplified method, improved diagnosis of gastroenteric diseases.

pp; 0 DwgNo 0/0

Derwent Class: B04; D16; S03
International Patent Class (Main): G01N-033/48
International Patent Class (Additional): C12N-001/20

10/7/14 (Item 2 from file: 351)
DIALOG(R)File 351:Derwent WPI

012496897
WPI Acc No: 1999-303005/199925
Culturing microorganisms present in sample comprises filtration, flushing filter with liquid nutrient medium and establishing gas pressure gradient
Patent Assignee: ABOATECH OY AB (ABOA-N); ABOA TECH OY AB (ABOA-N)
Inventor: LEHTONEN O
Number of Countries: 021 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9921960	A1	19990506	WO 98FI828	A	19981023	199925	B
FI 9704043	A	19990425	FI 974043	A	19971024	199930	
FI 105044	B1	20000531	FI 974043	A	19971024	200033	
EP 1025202	A1	20000809	EP 98950130	A	19981023	200039	
			WO 98FI828	A	19981023		

Priority Applications (No Type Date): FI 974043 A 19971024
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9921960	A1	E	20	C12N-001/04	
Designated States (National): US					
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
FI 9704043	A			C12Q-000/00	
FI 105044	B1			C12N-001/04	Previous Publ. patent FI 9704043
EP 1025202	A1	E		C12N-001/04	Based on patent WO 9921960
Designated States (Regional): AL AT CH DE DK ES FR GB IT LI NL SE					

Abstract (Basic): WO 9921960 A1

NOVELTY - The method comprises:

(a) filtering the sample through a microbiological filter;

(b) flushing the filter with a liquid nutrient medium; and

(c) establishing a gas pressure gradient for retaining contact between the filter and the liquid medium but enabling growth of separate colonies during the subsequent incubation.

USE - The method is useful for culturing microbiological samples especially body fluids e.g. whole blood sample, synovial fluid, cerebrospinal fluid, ascites (claimed) and also water samples , filterable food or environmental samples . The culture method is useful for applications to the construction of microbiological culture

in field conditions from dry nutrient medium and water using the filter and in the replacement of agar in microbiological culture research.

ADVANTAGE - The culture method is able to be automated, contamination of the liquid medium is easily avoided as the liquid flows in one direction through the filter, the liquid medium can be easily changed (even during incubation) and different gas mixtures can be used for different atmospheric requirements of the microbes. Comparative tests were carried out using the filter culture method (Bactexpress) and the transfer of the filter onto a conventional agar plate using Escherichia coli ATCC 25922 and Enterococcus faecalis ATCC 29212. The results (% separate colonies) were recorded at 14 hours and 21 hours at 0.5 bar. The results were:

(i) Bactexpress - 75, filter on agar - 35; and

(ii) Bactexpress - 86, filter on agar - 26.

pp; 20 DwgNo 0/2

Derwent Class: B04; D16

International Patent Class (Main): C12N-001/04; C12Q-000/00

International Patent Class (Additional): B01L-003/00; C12M-001/04; C12M-001/113; C12M-001/12; C12M-001/24; C12M-001/26; C12M-001-04; C12Q-001/04; C12Q-001/06

10/7/15 (Item 3 from file: 351)

DIALOG(R)File 351:Derwent WPI

009252631

WPI Acc No: 1992-380048/199246

Sepn. and identifying of Xanthomonas maltophilia bacteria - using selective culture medium contg. dry fish-hydrolysate agar, bismuth nitrate, sodium chloride soln. and water

Patent Assignee: SIVOLODSKII E P (SIVO-I)

Inventor: SIVOLODSKII E P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
SU 1703696	A1	19920107	SU 4744588	A	19891020	199246	B

Priority Applications (No Type Date): SU 4744588 A 19891020

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
SU 1703696	A1		2	C12Q-001/04	

Abstract (Basic): SU 1703696 A

The method comprises sowing analysed material onto culture medium contg. (in g/l): dry nutrient agar made of fish hydrolysate 35-36, bismuth nitrate 1.5-3, mixt. of 10% soln. of furagin (sic) with 90% sodium chloride (I) 0.018-0.03 and distilled water up to 1 l (pH of medium 6.8-7.2), conducting incubation at 35-37 deg.C for 40-48 hrs. (or 18-24 hrs. if pure cultures were sown) and identifying present X. maltophilia cultures directly in the culture medium from the presence of silver-metallic lustre around grown colonies.

Tests show that the proposed medium gives positive results for all known strains of X. maltophilia (11o) and maintains sensitivity also in the presence of large concns. of other bacteria (the medium inhibits growth of most of them, including Escherichia, Morganella, Citrobacter

et al.) High sensitivity and selectivity of medium allows detection and also quantitative determn. of X. maltophilia in various samples collected from patients and from hospital enviroment.

USE/ADVANTAGE - In medical microbiology , as a method of sepn. of identifying of Xanthomonas maltophilia bacteria , causing infection diseases e.g. among hospital patients. The method is simple and accurate, owing to use of highly selective medium. Bul.1/7.1.91

Dwg.0/0

Derwent Class: B04; D16
International Patent Class (Main): C12Q-001/04
International Patent Class (Additional): C12N-001/20

10/7/16 (Item 4 from file: 351)
DIALOG(R)File 351:Derwent WPI

008762787
WPI Acc No: 1991-266801/199136
Universal preenrichment medium - used for detecting Salmonella and Listeria in food prods. or environmental samples
Patent Assignee: US SEC OF AGRIC (USDA); US AGRIC RES SERV (USDA)
Inventor: BAILEY J S; COX N A; COX N
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 7586116	N	19910730	US 90155358	A	19900921	199136	B
US 5145786	A	19920908	US 90586116	A	19900921	199239	

Priority Applications (No Type Date): US 90155358 A 19900921; US 90586116 A 19900921
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5145786	A		5	C12N-001/20	

Abstract (Basic): US 7586116 N

A medium for the detection of Salmonella and Listeria in food prods. or environmental samples is disclosed comprising a universal pre-enrichment (UP) broth which is highly buffered and low in carbohydrates.

USE/ADVANTAGE - The medium allows sublethally injured bacteria to resuscitate and multiply to sufficiently high numbers so that a highly selective secondary enrichment medium for Salmonella or Listeria can be used to detect the specific bacteria .

US 7586116 A

A medium for the detection of Salmonella and Listeria in food prods. or environmental samples is disclosed comprising a universal pre-enrichment (UP) broth which is highly buffered and low in carbohydrates.

USE/ADVANTAGE - The medium allows sublethally injured bacteria to resuscitate and multiply to sufficiently high numbers so that a highly selective secondary enrichment medium for Salmonella or Listeria can be used to detect the specific bacteria .

Dwg.0/0

Abstract (Equivalent): US 5145786 A

Preenrichment media comprises (a) 1-10g per l of tryptone; (b) 1-10g per l of protease peptone; (c) 0.2-1.0g per l of glucose; (d)

0.2-1.0g per l of sodium pyruvate; (e) 0.1-2.5g per l of ferric ammonium citrate; (f) 1-5g per l of NaCl; (g) 0.1-0.5g per l of MgSO4.7H2O; (h) Buffer salts; and (i) 1l of distilled water. Opt. media comprises dry powder form or includes water.

USE - For preenriching and/or propagating a combination of Salmonella and Listeria spp. in simultaneous sampling

Dwg.0/0

Derwent Class: D13; D16; S03
International Patent Class (Main): C12N-001/20
International Patent Class (Additional): G01N-000/01

10/7/17 (Item 5 from file: 351)
DIALOG(R)File 351:Derwent WPI

000513192
WPI Acc No: 1966-13736F/196800
Medium for cholera vibrio
Patent Assignee: SUEMATSU E (SUEM)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 64018837	B					196800	B

Priority Applications (No Type Date): JP 6238829 A 19620906

Abstract (Basic): JP 64018837 B

Medium for the selective cultivation of cholera vibrio.

The dry medium is characterized by including suitable amounts of dihydrostreptomycin sulphate and sodium desoxycholate in addition to fuchsin, anhydrous Na2SO4, lactose, glucose, ferric citrate, sodium citrate, anhydrous sodium thiosulphate, anhydrous Na2CO3, powdery meat extract, polypeptone and powdery agar.

The dry medium is heated in distilled water for 30 mins. to give a paste which can be used for selective growth of cholera vibrio while the growth of Escherichia, Proteus and various bacteria is inhibited.

Derwent Class: B00
?logoff hold

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show files
File 155:MEDLINE(R) 1966-2002/Aug W1
File   5:Biosis Previews(R) 1969-2002/Aug W1
         (c) 2002 BIOSIS
File 315:ChemEng & Biotec Abs 1970-2002/Jun
         (c) 2002 DECHEMA
File  73:EMBASE 1974-2002/Aug W1
         (c) 2002 Elsevier Science B.V.
File 399:CA SEARCH(R) 1967-2002/UD=13706
         (c) 2002 AMERICAN CHEMICAL SOCIETY
File 351:Derwent WPI 1963-2002/UD,UM &UP=200249
         (c) 2002  Thomson Derwent
?ds

Set     Items   Description
S1         85   POWDER? (5N) (GROWTH OR GROWING OR NUTRIENT? ? OR NUTRITI?-
              )(5N) (MEDIUM OR MEDIA)
S2     113042   (MICROB? OR BACTERI? OR FUNGUS OR FUNGI OR YEAST)(3N)(SAMP-
              LE? ? OR CULTUR? OR SUSPENSION? ?)
S3     864265   SELECTIV?
S4        276   (NITROPHENYL OR NITRO()PHENYL) (5N) GLUCURONIDE? ?
S5          0   NAPHTHALAMID? (5N) GLUCURONIDE? ?
S6        179   NAPHTHOL (5N) GLUCURONIDE? ?
S7        483   (METHYLUMBELLIFER? OR METHYL()UMBELLIFER?) (3N) GLUCURONID-
              E? ?
S8          0   PYRONID? (3N) AMINOPEPTIDASE? ?
S9          0   (NITROPHENYL OR NITRO()PHENYL OR NAPTHALAMID? OR NAPHTHOL -
              OR METHYLUMBELLIFER? OR METHYL()UMBELLIFER?) (5N) PYRONID?
S10      1708   ALANINE (3N) AMINOPEPTIDASE? ?
S11       556   (NITROPHENYL OR NITRO()PHENYL OR NAPTHALAMID? OR NAPHTHOL -
              OR METHYLUMBELLIFER? OR METHYL()UMBELLIFER?) (5N) ALANINE
S12     35092   GLUCURONIDASE? ?
S13      2310   POWDER? (7N) (MEDIUM OR MEDIA)
S14     67605   GLUCURONID?
S15       469   AU=EDBERG S? OR AU=EDBERG, S?
S16        36   S15 AND S2
S17         2   S16 AND S3
S18         2   RD S17 (unique items)
S19      3963   S2 AND S3
S20        19   S19 AND POWDER?
S21        15   S20 AND SELECTIVE
S22      1566   S2 AND (SELECTIVE(3N)(MEDIUM OR MEDIA))
S23        28   S2 AND (SELECTIVE(3N)(NUTRIT? OR NUTRIENT? ?))
S24      1581   S22 OR S23
S25        80   S24 AND PLATED
S26      1501   S24 NOT S25
S27        69   S26 AND SOLID
S28      1432   S26 NOT S27
S29       576   S28 AND AGAR? ?
S30       856   S28 NOT S29
S31       152   S30 AND COLI?
S32         0   S30 AND AMINOPEPTIDASE? ?
S33        16   S30 AND GLUCURONID?
S34        12   RD S33 (unique items)
S35         0   S24 AND (AMINOPEPTIDASE? ? OR AMINO()PEPTIDASE? ?)
S36        79   S24 AND (SELECTIVE (5N) BROTH)
S37        62   RD S36 (unique items)
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S38 14 S37 AND COLI?
S39 2 S37 AND FAECALIS
S40 2 S37 AND GLUCURONID?
S41 2 RD S40 (unique items)
S42 10 S24 AND (S4-S11)
S43 8 RD S42 (unique items)
S44 32 S18 OR S34 OR S38 OR S39 OR S40 OR S43
S45 475 AU=EDBERG S? OR AU=EDBERG, S?
S46 6 S45 NOT S15
S47 38 S44 OR S46
?t 47/7/all

47/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12618729 21568809 PMID: 10880188
Methods for the detection and isolation of Shiga toxin-producing Escherichia coli .
De Boer E; Heuvelink A E
Inspectorate for Health Protection, Zutphen, The Netherlands.
Symposium series (Society for Applied Microbiology) (England) 2000, (29) p133S-143S, ISSN 1467-4734 Journal Code: 100892834
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Shiga toxin-producing Escherichia coli (STEC) are an important cause of haemorrhagic colitis and the diarrhoea-associated form of the haemolytic uraemic syndrome. Of the numerous serotypes of E. coli that have been shown to produce Shiga toxin (Stx), E. coli O157:H7 and E. coli O157:NM (non-motile) are most frequently implicated in human disease. Early recognition of STEC infections is critical for effective treatment of patients. Furthermore, rapid microbiological diagnosis of individual patients enables the prompt notification of outbreaks and implementation of control measures to prevent more cases. Most human infections caused by STEC have been acquired by the consumption of contaminated foods, especially those of bovine origin such as undercooked ground beef and unpasteurized cows' milk, and by person-to-person contacts. To identify the reservoirs of STEC and the routes of transmission to man, sensitive methods are needed as these pathogens may only be present in food, environmental and faecal samples in small numbers. In addition, sensitive and rapid detection methods are necessary for the food industry to ensure a safe supply of foods. Sensitive methods are also needed for surveillance programmes in risk assessment studies, and for studies on survival and growth of STEC strains. Cultural methods for the enrichment, isolation and confirmation of O157 STEC are still evolving. Several selective enrichment media have been described, of which modified tryptone soy broth with novobiocin and modified E. coli broth with novobiocin, seem to be the most appropriate. These media are minimally- selective broths that give a somewhat limited differential specificity favouring isolation of O157 STEC, as opposed to other Gram-negative bacteria , in the sample . An incubation temperature of 41-42 degrees C further enhances selectivity. The occurrence of heat-, freeze-, acid- or salt-stressed STEC in foods means that it is important to be able to detect cells that are in a stressed state, as STEC generally have a very low infectious dose, and injured cells mostly retain their pathogenic properties. For the isolation of stressed O157 STEC, pre-enrichment in a non- selective broth is

necessary. The most widely used plating medium for the isolation of typical sorbitol-non-fermenting strains of STEC of serogroup O157 is sorbitol MacConkey agar with cefixime and tellurite (CT-SMAC). As some STEC strains are sensitive for tellurite and/or are sorbitol-fermenting, the use of a second isolation medium, such as one of the newer chromogenic media, is recommended. Immunomagnetic separation (IMS) following selective enrichment, and subsequent spread-plating of the concentrated target cells onto CT-SMAC agar, appears to be the most sensitive and cost-effective method for the isolation of E. coli O157 from raw foods. IMS increases sensitivity by concentrating E. coli O157 relative to background microflora, which may overgrow or mimic O157 STEC cells on selective agars. While cultural isolation of O157 STEC from foods and faeces is time-consuming, labour-intensive and hence, costly, rapid immunological detection systems have been developed which significantly reduce the analysis time. These methods include enzyme-linked immunosorbent assays (ELISAs), colony immunoblot assays, direct immunofluorescent filter techniques, and several immunocapture techniques. Both polyclonal and monoclonal antibodies specific for the O and H antigens are used for these methods. Many of these test systems are able to detect less than one O157 STEC cell g(-1) of raw meat after overnight enrichment. Presumptive results are available after just one day, but need to be completed with the isolation of the organisms. The primary use of these procedures is therefore to identify food and faecal samples that possibly contain O157 STEC. (72 Refs.)

Record Date Created: 20011116

47/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11129523 21145996 PMID: 11248134

Metabolism, microflora effects, and genotoxicity in haloacetic acid-treated cultures of rat cecal microbiota .

Nelson G M; Swank A E; Brooks L R; Bailey K C; George S E

U. S. Environmental Protection Agency, Office of Research and Development, National Health and Environmental Effects Research Laboratory, Environmental Carcinogenesis Division, Research Triangle Park, North Carolina 27711, USA. nelson.gail@epa.gov

Toxicological sciences : an official journal of the Society of Toxicology (United States) Apr 2001, 60 (2) p232-41, ISSN 1096-6080
Journal Code: 9805461

Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Haloacetic acids are by-products of drinking water disinfection. Several compounds in this class are genotoxic and have been identified as rodent hepatocarcinogens. Enzymes produced by the normal intestinal bacteria can transform some promutagens and procarcinogens to their biologically active forms. The present study was designed to investigate the influence of the cecal microbiota on the mutagenicity of haloacetic acids, and to look at changes in the microbiota populations and enzyme activities associated with exposure to haloacetic acids. PYG medium containing 1 mg/ml of monochloroacetic (MCA), monobromoacetic (MBA), dichloroacetic (DCA), dibromoacetic (DBA), trichloroacetic (TCA), tribromoacetic (TBA), or bromochloroacetic (BCA) acid was inoculated with rat cecal homogenate and incubated anaerobically at 37 degrees C. Growth curves were performed with

enumeration of the microflora populations on selective media . Mutagenicity in a Salmonella microsuspension bioassay was determined after incubation for various lengths of time, with or without the cecal microbiota. At 15 h of incubation, enzyme assays determined the activities for beta- glucuronidase , beta-galactosidase, beta-glucosidase, azoreductase, nitroreductase, dechlorinase, and dehydrochlorinase. The haloacetic acids, with the exception of BCA, were toxic to the cecal microbiota, and especially to the enterococci. DBA, TBA, and BCA were mutagenic in the microsuspension assay, but the presence of the intestinal flora did not significantly alter the mutagenicity. BCA increased the activities of several enzymes, and therefore has the potential to affect the biotransformation of co-exposed compounds.
Record Date Created: 20010315

47/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11053109 21039784 PMID: 11198440
Evaluation of a selective broth for detection of Staphylococcus aureus using impedance microbiology.
Glassmoyer K E; Russell S M
U.S. Department of Agriculture, Agricultural Research Service, Richard B. Russell Agricultural Research Center, Athens, Georgia 30605 USA.
Journal of food protection (United States) . Jan 2001, 64. (1) p44-50, ISSN 0362-028X Journal Code: 7703944
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Experiments were conducted to evaluate a selective nutrient broth containing acriflavine and nalidixic acid for detection of Staphylococcus aureus using an impedance microbiological method. Nine species of bacteria, other than S. aureus, were evaluated using the selective broth to determine if these species could be inhibited. A total of 10 ppm of nalidixic acid inhibited the gram-negative species tested, with the exception of Pseudomonas aeruginosa. Similarly, 10 ppm of acriflavine suppressed the Staphylococcus spp. examined; however, S. aureus retained the ability to proliferate. Nutrient broth solution containing 10 ppm of nalidixic acid and 10 ppm of acriflavine (S. aureus impedance broth [SIB]) inhibited multiplication of most of the bacterial species tested and allowed S. aureus to be detected in an average of 16.4 h. Fresh chicken carcass rinses and cooked chicken rinses were inoculated with Escherichia coli and S. aureus and assayed using SIB in conjunction with impedance. Results demonstrated that S. aureus could be detected in less than 11.5 h, although the presence of E. coli decreased detection times. Additionally, impedance assays were conducted using five different poultry products to evaluate the sensitivity of the broth for detecting S. aureus. S. aureus could be detected on poultry products when present at low levels (10(1) CFU/ml) in less than 24 h. These studies demonstrated that SIB may be used in conjunction with impedance for rapid detection of S. aureus. However, without further modification, this method should not be used for enumeration of S. aureus from samples containing mixed microflora.
Record Date Created: 20010124

47/7/4 (Item 4 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

10904023 20468825 PMID: 11016610
New developments in chromogenic and fluorogenic culture media.
Manafi M
Hygiene Institute, University of Vienna, Austria. mohammad.manafi@univie.ac.at
International journal of food microbiology (NETHERLANDS) Sep 25 2000, 60 (2-3) p205-18, ISSN 0168-1605 Journal Code: 8412849
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
This review describes some recent developments in chromogenic and fluorogenic culture media in microbiological diagnostic. The detection of beta-D- glucuronidase (GUD) activity for enumeration of Escherichia coli is well known. E. coli O157:H7 strains are usually GUD-negative and do not ferment sorbitol. These characteristics are used in selective media for these organisms and new chromogenic media are available. Some of the new chromogenic media make the Salmonella diagnostic easier and faster. The use of chromogenic and fluorogenic substrates for detection of beta-D-glucosidase (beta-GLU) activity to differentiate enterococci has received considerable attention and new media are described. Rapid detection of Clostridium perfringens, Listeria monocytogenes, Bacillus cereus and Staphylococcus aureus are other application of enzyme detection methods in food and water microbiology. (73 Refs.)
Record Date Created: 20001102

47/7/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10888187 20440661 PMID: 10970389
Multilaboratory validation of rapid spot tests for identification of Escherichia coli.
York M K; Baron E J; Clarridge J E; Thomson R B; Weinstein M P
Department of Laboratory Medicine, University of California, San Francisco, California 94143, USA. MKYORK@WORLDNET.ATT.NET
Journal of clinical microbiology (UNITED STATES) Sep 2000, 38 (9) p3394-8, ISSN 0095-1137 Journal Code: 7505564
Document type: Journal Article; Validation Studies
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
To validate the accuracy of rapid tests for identification of Escherichia coli, five laboratories sequentially collected 1,064 fresh, clinically significant strains with core criteria of indole-positive, oxidase-negative, nonspreading organisms on sheep blood agar plates (BAP), having typical gram-negative rod plate morphology, defined as good growth on gram-negative rod- selective media . An algorithm using beta-hemolysis on BAP, lactose reaction on eosin-methylene blue or MacConkey agar, L-pyrrolidonyl-beta-naphthylamide (PYR), and 4- methylumbelliferyl -beta-D- glucuronide (MUG) was evaluated. Identifications using the algorithm were compared to those obtained using commercial kit system identifications. One thousand strains were E. coli and 64 were not E. coli by kit identifications, which were supplemented with conventional biochemical testing of low probability profiles. Of the 1,064 isolates meeting the core

criteria, 294 were beta-hemolytic and did not require further testing to be identified as E. coli. None of the 64 non-E. coli strains were hemolytic, although other indole-positive, lactose-negative species were found to be hemolytic when further strains were examined in a follow-up study. Of the remaining strains, 628 were identified as E. coli by a lactose-positive and PYR-negative reaction. For nonhemolytic, lactose-negative E. coli, PYR was not helpful, but a positive MUG reaction identified 65 of 78 isolates as E. coli. The remaining 13 E. coli strains required kit identifications. This scheme for E. coli identification misidentified three non-E. coli strains as E. coli, for an error rate of 0.3%. A total of 13 kit identifications, 657 PYR tests, and 113 MUG tests were needed to identify 1,000 E. coli strains with the algorithm. The use of this rapid system saves laboratory resources, provides timely identifications, and yields rare misidentifications.

Record Date Created: 20001124

47/7/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10594972 20128370 PMID: 10664985

Development of a m-PCR assay for simultaneous identification of Campylobacter jejuni and C. coli .

Denis M; Soumet C; Rivoal K; Ermel G; Blivet D; Salvat G; Colin P

Unite d'Hygiene et Qualite des Produits Avicoles et Porcins, Agence Francaise de Securite Sanitaire des Aliments, Ploufragan, France.

Letters in applied microbiology (ENGLAND) Dec 1999, 29 (6) p406-10, ISSN 0266-8254 Journal Code: 8510094

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Multiplex PCR assay (m-PCR) with three sets of primers was developed for simultaneous identification of Campylobacter jejuni and C. coli . Poultry faecal samples were enriched in Preston broth for 24 h and streaking on selective media was performed before and after enrichment. m-PCR was applied on bacterial cultures harvested from media plates. The data showed a selective effect of Preston broth which favoured the growth of C. coli . Identification of the species by the hippurate hydrolysis test and by the m-PCR was performed on 294 isolates of Campylobacter. The efficiency of the identification by the biochemical test is only 34% in comparison to 100% efficiency with the PCR. The use of our m-PCR in combination with the culture method allowed reliable detection and identification of C. jejuni and C. coli within 3-4 d.

Record Date Created: 20000301

47/7/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09947472 98388616 PMID: 9721644

Development of a new culture medium for the rapid detection of Salmonella by indirect conductance measurements.

Blivet D; Salvat G; Humbert F; Colin P

Centre National d'Etudes Veterinaires et Alimentaires, Ploufragan, France.

Journal of applied microbiology (ENGLAND) Mar 1998, 84 (3) p399-403,

ISSN 1364-5072 Journal Code: 9706280
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
The main difficulties in conductance medium development are to allow Salmonella to grow and produce a conductance signal while impeding growth of related species such as Escherichia coli and Citrobacter freundii. Various selective agents were screened for these capacities and a new medium was derived, named KIMAN (Whitley Impedance Broth basal medium supplemented with three selective components: novobiocin, malachite green and potassium iodide). This medium supported the growth of Salmonella serotypes and inhibited non-salmonella strains in pure cultures.
Record Date Created: 19980916

47/7/8 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09894199 98320608 PMID: 9647852
Enhanced broth media for selective growth of Vibrio vulnificus.
Hsu W Y; Wei C I; Tamplin M L
Department of Food Science and Human Nutrition, University of Florida, Gainesville 32611, USA.
Applied and environmental microbiology (UNITED STATES) Jul 1998, 64 (7) p2701-4, ISSN 0099-2240 Journal Code: 7605801
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Rapid detection of Vibrio vulnificus can be enhanced by optimizing the components of enrichment broth. PNC (5% peptone, 1% NaCl, and 0.08% cellobiose [pH 8.0]) enhanced the growth of V. vulnificus compared to alkaline peptone broth. PNCC (PNC with 1.0 to 4.1 U of colistin methanesulfonate per ml) increased the growth of low levels of V. vulnificus while suppressing non-target bacteria.
Record Date Created: 19980811

47/7/9 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09381327 97280430 PMID: 9134776
An evaluation of the use of 4- methylumbelliferyl -beta-D- glucuronide (MUG) in different solid media for the detection and enumeration of Escherichia coli in foods.
Villari P; Iannuzzo M; Torre I
Institute of Hygiene and Preventive Medicine, University Federico II Medical School, Naples, Italy.
Letters in applied microbiology (ENGLAND) Apr 1997, 24 (4) p286-90, ISSN 0266-8254 Journal Code: 8510094
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
The use of 4- methylumbelliferyl -beta-D- glucuronide (MUG) in different solid media for the detection and enumeration of Escherichia coli in foods

was evaluated by testing the effects of different substrate concentrations (50 or 100 micrograms ml-1), incubation temperatures (37 or 41.5 degrees C) and incubation times (8, 12, 24 and 48 h). Different kinds of foods, both naturally and artificially contaminated, were analysed. The use of selective media without differential substances and an incubation time of 24 h seem to be worthy of recommendation. In this case an incubation temperature of 37 degrees C would be preferred and the MUG concentration could be reduced to 50 micrograms ml-1. Incubation times shorter than 24 h, which may cause a loss of sensitivity, require higher incubation temperatures (41.5 degrees C) and MUG concentration (100 micrograms ml-1).
Record Date Created: 19970603

47/7/10 (Item 10 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09248924 97123649 PMID: 8968896
Use of Gen-Probe AccuProbe Group B streptococcus test to detect group B streptococci in broth cultures of vaginal-anorectal specimens from pregnant women: comparison with traditional culture method.
Bourbeau P P; Heiter B J; Figdore M
Division of Laboratory Medicine, Geisinger Medical Center, Danville, Pennsylvania 17822, USA. pbourbeau@smtp.geisinger.edu
Journal of clinical microbiology (UNITED STATES) Jan 1997, 35 (1) p144-7, ISSN 0095-1137 Journal Code: 7505564
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Detection of vaginal-anorectal colonization with group B streptococci (GBS) is critical to the prevention of neonatal GBS disease. The recommended method for the detection of GBS is culture of the distal vagina and anorectum in a selective broth medium followed by subculture to solid media and identification of GBS on the solid media. The purpose of this study was to compare this standard culture method with the detection of GBS directly from an enrichment broth by utilizing the Gen-Probe AccuProbe Group B Streptococcus Culture Identification Test (GPGB). A total of 502 specimens were tested in this study. Both culture and the GPGB detected 90 of 95 positive specimens (sensitivity, 94.7%). There were two false-positive GPGB results (specificity, 99.5%). An analysis of 100 consecutive specimens was performed to compare the costs associated with the use of a primary tryptic soy agar plate with 5% sheep blood (BAP) and a 3-ml tube of Todd-Hewitt broth supplemented with 10 micrograms of nalidixic acid per ml and 15 micrograms of colistin per ml (LIM broth) with subculture to another BAP and the costs associated with the GPGB. Our estimated costs were $3.68 for a negative culture including 7.0 min of labor, $5.41 for a positive culture including 8.9 min of labor, and $5.16 for the GPGB including 3.6 min of labor (based upon a test run of 10 specimens and two controls and a cost of $70.00 for a 20-test GPGB kit). Accessioning and reporting of results are not included in these costs. In conclusion, we found that the GPGB was equivalent in sensitivity to our standard culture method. While overall costs were somewhat higher for the GPGB, the GPGB has lower labor costs and offers the potential for incremental savings with higher test volumes and computer interface capability.
Record Date Created: 19970319

47/7/11 (Item 11 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08916520 96249608 PMID: 8815109
Selective isolation of vancomycin-resistant enterococci.
van Horn K G; Gedris C A; Rodney K M
Department of Clinical Pathology, Westchester County Medical Center, Valhalla, New York 10595, USA.
Journal of clinical microbiology (UNITED STATES) Apr 1996, 34 (4) p924-7, ISSN 0095-1137 Journal Code: 7505564
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Broth formulations of two media selective for enterococci, Enterococcel, M-Enterococcosel broths were supplemented with 6 micrograms of vancomycin per ml and evaluated for isolation of vancomycin-resistant enterococci (VRE). Each broth was challenged with various concentrations of Staphylococcus aureus, Escherichia coli , Pseudomonas aeruginosa, and vancomycin-susceptible and vancomycin-resistant enterococci and with 193 perianal specimens obtained from patients at risk in our institution for VRE colonization. Both the Enterococcosel and M-Enterococcus broths with vancomycin detected as few as 1 to 9 CFU of VRE while inhibiting growth of the other organisms tested. Enterococcus faecium organisms (MIC, > 256 micrograms/ml) were recovered from 66 perianal swab cultures in the enterococcosel-vancomycin broth, and VRE were recovered from 62 perianal swab cultures in the M-Enterococcus-vancomycin broth. Enterococcosel-vancomycin broth detected VRE in perianal specimens 48 h earlier than did M-Enterococcus-vancomycin broth. Enterococcosel broth with 6 micrograms of vancomycin per ml can be used for the rapid and selective isolation of VRE from surveillance specimens.
Record Date Created: 19961008

47/7/12 (Item 12 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08689078 96056259 PMID: 7561254
Rapid detection of Vibrio cholerae with a new selective enrichment medium and polymerase chain reaction.
Kida N; Suzuki S; Taguchi F
Center for Inspection of Imported Foods and Infectious Diseases, Yokohama Quarantine Station, Ministry of Health and Welfare, Kanagawa, Japan.
Kansenshogaku zasshi. The Journal of the Japanese Association for Infectious Diseases (JAPAN) Jul 1995, 69 (7) p826-34, ISSN 0387-5911 Journal Code: 0236671
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
The inhibitory effect of metallic EDTA compounds on growth of Vibrio cholerae and Escherichia coli was studied. Only Fe-EDTA among the compounds tested showed pH-dependent growth inhibition on E. coli at pH 9.0, but no inhibition of V. cholerae at the same pH. By addition of Fe-EDTA as a selective inhibitor, a novel enrichment broth (tentatively designated as VCF broth) for the selective isolation and cultivation of

V. cholerae from other Gram-negative bacilli has been developed, and the selective enrichment capacity of VCF broth for V. cholerae and selective inhibiting activity against E. coli were significantly higher than those of alkaline peptone water. A simple procedure for rapid detection of V. cholerae by selective enrichment for 6 hr with VCF broth and then amplification of the cholera toxin target DNA fragment by the polymerase chain reaction was presented. VCF broth may be a useful tool for the selective enrichment of V. cholerae in bacterial examinations.
Record Date Created: 19951121

47/7/13 (Item 13 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08217673 94355174 PMID: 8074974
Modes of inhibition of foodborne non-Salmonella bacteria by selenite cystine selective broth .
Chen H; Fraser A D; Yamazaki H
Department of Biology, Carleton University, Ottawa, Ontario, Canada.
International journal of food microbiology (NETHERLANDS) May 1994, 22 (2-3) p217-22, ISSN 0168-1605 Journal Code: 8412849
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Various cell densities of six common foodborne non-Salmonella bacteria were exposed to selenite cystine (SC) Salmonella selective medium . The insensitivity of Pseudomonas aeruginosa and Proteus vulgaris to SC was confirmed. Selenite cystine selective medium was effective against the sensitive bacteria up to certain cell densities, beyond which the bacteria survived. As judged from the minimum cell number required for survival in SC, Staphylococcus aureus was the most sensitive to SC, followed by Bacillus cereus, Escherichia coli and Citrobacter freundii. When sensitive bacteria were grown in SC, they enriched resistant variants which exhibited no or reduced sensitivity to SC. The change in density of sensitive cells after exposure to SC suggested that bacterial sensitivity to SC depended on the efficiency of killing and growth inhibition by SC as well as the fraction of resistant variants in the bacterial population. Since Salmonella samples generally contain unknown numbers and types of sensitive bacteria, it is difficult to predict the effectiveness of their selective inhibition by SC.
Record Date Created: 19941005

47/7/14 (Item 14 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07654313 93187412 PMID: 1293218
[Detection of verotoxin-producing Escherichia coli using polymerase chain reaction from dairy cattle]
Tada H; Itami S; Yamamoto Y; Kobayashi K; Taguchi M; Nakazawa M
Tokushima Prefectural Institute of Public Health and Environmental Sciences.
Kansenshogaku zasshi. The Journal of the Japanese Association for Infectious Diseases (JAPAN) Oct 1992, 66 (10) p1383-9, ISSN 0387-5911 Journal Code: 0236671
Document type: Journal Article ; English Abstract

Languages: JAPANESE
Main Citation Owner: NLM
Record type: Completed

The vero cytotoxin (VT) is responsible for hemorrhagic colitis and hemolytic uremic syndrome. Polymerase chain reaction (PCR) was used to detect VT-producing coliform bacteria from dairy cattle. It was found that 39 (33.3%) of the 117 fecal samples examined were recognized with VT genes in BGLB enrichment broth by the PCR method (named BGLB-PCR). Of the VT-positive samples, 31 samples (26.5%) were found to have VT-producing Escherichia coli. Frequencies of isolation in younger cattle (under 5 months) were 31.3-32.9%. On the other hand, the PCR method using the bacterial suspension of some colonies from DHL selective isolation medium (named DHL-PCR), was used for 105 samples. The DHL-PCR was validated according to the number of colonies tested for detecting VTEC. When using E. coli strains which have been stored after isolation by the conventional culture method, the VT-producing strains found were 7 (10.3%) of the 68 isolates tested. The 101 out of the 108 VTEC strains from cattle were classified into 14 O groups. 4 O serogroups (O26, O111, O145, O157) from 60% of VTEC positive cattle, were also the most common in humans with diarrhea. All E. coli O157:H7 isolates failed to ferment after 48 hrs and to hydrolyze 4- methyl - umbelliferyl -beta-D- glucuronide (MUG). These results suggests that cattle may play an important role in human VTEC infections. The BGL B-PCR technique is usefull in ecological studies for VT-producing pathogens.

Record Date Created: 19930402

47/7/15 (Item 15 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07474464 93000316 PMID: 1382430

[Growth behavior of Enterobacteriaceae in BRILA-MUG-broth and in different modifications of broth]

Wachstumsverhalten von Enterobacteriaceae in BRILA-MUG-Bouillon und in verschiedenen Modifikationen der Bouillon.

Muller H E; Aleksic S; Bockemuhl J; Havemeister G; Heinemeyer E A; von Pritzbuer E

Staatliches Medizinaluntersuchungsamt Braunschweig.

Zentralblatt fur Hygiene und Umweltmedizin = International journal of hygiene and environmental medicine (GERMANY) Aug 1992, 193 (2) p106-13 , ISSN 0934-8859 Journal Code: 8912563

Document type: Journal Article ; English Abstract

Languages: GERMAN
Main Citation Owner: NLM
Record type: Completed

Both substances, brilliant green and bile, inhibit the growth of gram-positive bacteria in culture media and selectively enrich gram-negative bacteria. Therefore, the brilliant green-lactose-bile broth (BRILA) and the BRLA broth supplemented with tryptophan and methyl - umbelliferyl -beta-D- glucuronide (BRILA-MUG) contain brilliant green as well as bile. Because BRILA-MUG broth as a selective enrichment and differentiating medium of faecal coliform and total coliform bacteria, E. coli and coliforms , respectively, is recommended for testing samples of surface water according to the EC guidelines for bathing waters (no. 76/160 EWG), the question arose of the optimal combination of components in the BRILA-MUG broth. As the described investigations show, the addition of buffer substances did not improve the culture properties of

the BRILA-MUG broth. However, the original BRILA broth was improved by supplementing it with buffer substances such as CaCO3 or Na2HPO4. The same effect of culture improvement was obtained by removing brilliant green. This modification of BRILA broth is practically identic with the well-known MacConkey broth. On the other hand, the modification of omitting bile from the original BRILA broth causes a remarkable impairment of the culture properties lowering bacterial counts per ml by 3-5 log. The observations suggest that brilliant green inhibits both, gram-positive bacteria as well as the gram-negative Enterobacteriaceae. Therefore, it is a selective substance of doubtful usefulness.
Record Date Created: 19921105

47/7/16 (Item 16 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06582132 90279545 PMID: 2112678
Fluorogenic detection of atypical coliforms from water samples.
Cenci G; Caldini G; Sfodera F; Morozzi G
Department of Hygiene, University of Perugia, Italy.
Microbiologica (ITALY) Apr 1990, 13 (2) p121-9, ISSN 0391-5352 Journal Code: 7902903
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
We examined the effectiveness of fluorogen in detecting bacterial enzymes in atypical or injured coliform strains in environmental water samples. 4-methylumbelliferyl-beta-D-galactoside and 4- methylumbelliferyl -beta-D- glucuronide , substrates for beta-galactosidase and beta- glucuronidase respectively, were used as markers for total and faecal coliform bacteria and it was confirmed that fluorogenic assays have a greater sensitivity than reference methods. It was also observed that adding MU-conjugates (50 micrograms/ml) to low selective media for membrane filtration, besides shortening test times, reduces false negative results when detecting sanitary microbial indicators of water pollution.
Record Date Created: 19900718

47/7/17 (Item 17 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04842954 85224125 PMID: 3890742
Monensin-based medium for determination of total gram-negative bacteria and Escherichia coli.
Petzel J P; Hartman P A
Applied and environmental microbiology (UNITED STATES) Apr 1985, 49 (4) p925-33, ISSN 0099-2240 Journal Code: 7605801
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Plate count-monensin-KCl (PMK) agar, for enumeration of both gram-negative bacteria and Escherichia coli, is composed of (per liter) 23.5 g of plate count agar, 35 mg of monensin, 7.5 g of KCl, and 75 mg of 4- methylumbelliferyl -beta-D- glucuronide (MUG). Monensin was added after the medium was sterilized. The diluent of choice for use with PMK agar was

0.1% peptone (pH 6.8); other diluents were unsatisfactory. Gram-negative bacteria (selected for by the ionophore monensin) can be used to judge the general quality or sanitary history of a commodity. E. coli (differentiated by its ability to hydrolyze the fluorogenic compound MUG) can be used to assess the safety of a commodity in regard to the possible presence of enteric pathogens. Pure-culture studies demonstrated that monensin completely inhibited gram-positive bacteria and had little or no effect on gram-negative bacteria. When gram-negative bacteria were injured by one of several methods, a few species (including E. coli) became sensitive to monensin; this sensitivity was completely reversed in most instances by the inclusion of KCl in the medium. When PMK agar was tested with food and environmental samples, 96% of 535 isolates were gram negative; approximately 68% of colonies from nonselective medium were gram negative. PMK agar was more selective than two other media against gram-positive bacteria and was less inhibitory for gram-negative bacteria . However, with water samples , KCl had an inhibitory effect on gram-negative bacteria, and it should therefore be deleted from monensin-containing medium for water analysis.(ABSTRACT TRUNCATED AT 250 WORDS)
Record Date Created: 19850627

47/7/18 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

13485011 BIOSIS NO.: 200200113832
Detection of first generational environmental sourced microbes in an environmentally-derived sample.
AUTHOR: Edberg Stephen C (a
AUTHOR ADDRESS: (a)356 Woodland La., Orange, CT, 06477**USA
JOURNAL: Official Gazette of the United States Patent and Trademark Office Patents 1253 (2):pNo Pagination Dec. 11, 2001
MEDIUM: e-file
ISSN: 0098-1133
DOCUMENT TYPE: Patent
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The presence or absence of a predetermined target first generation environmental sourced microbe in an environmentally derived sample is determined by adding a testing medium to the sample, or vice versa. The testing medium provides a selective growth medium for the target microbe and includes a specific nutrient which only the target microbe can metabolize. This specific nutrient is modified by attaching a sample-altering moiety thereto, thereby converting the nutrient to a nutrient-indicator. The sample-altering moiety is activated to alter the sample only if the specific nutrient is metabolized by the target microbe . The sample -altering moiety can be a material which changes the color of the sample (visible or non-visible) or changes an electrical characteristic of the sample, or alters some other detectable characteristic of the sample. The testing media does not have to be kept sterile, and the testing procedure does not have to be performed in a sterile environment. The medium also includes an accelerant which hastens the advancement of the target microbes to the log phase of growth during the testing procedure.

47/7/19 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

08888777 BIOSIS NO.: 199396040278
Recovery of transgenic chrysanthemum (Dendranthema grandiflora Tzvelev) after hygromycin resistance selection.
AUTHOR: Renou J P(a); Brochard P; Jalouzot R
AUTHOR ADDRESS: (a)Lab. Genetique, Univ. d'Angers, 2 Bd. Lavoisier, 49045 Angers**France
JOURNAL: Plant Science (Limerick) 89 (2):p185-197 1993
ISSN: 0168-9452
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: We have recovered transgenic chrysanthemum plants on a medium containing hygromycin after Agrobacterium-mediated transformation. We used the disarmed hypervirulent strain EHA101 containing a binary vector carrying the neomycine phosphotransferase II, the glucuronidase (GUS) and the hygromycin phosphotransferase genes. Different protocols of transformation are discussed. Optimal conditions were inoculations of nodes (dropping 20 min in the bacterial suspension) which were immediately transferred on a regeneration medium containing cefotaxime (500 mu-g/ml) and hygromycin (10 mu-g/ml). Neoformation of buds occurred on selective medium within two months on almost 40% of the inoculated explants. DNA analysis of plants showing GUS expression confirmed the T-DNA integration in the plant genome.

47/7/20 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

08423660 BIOSIS NO.: 000094130864
GROWTH OF ENTEROBACTERIACEAE IN BRILA-MUG BROTH AND IN DIFFERENT MODIFICATIONS OF THE BROTH
AUTHOR: MULLER H E; ALEKSIC S; BOCKEMUHL J; HAVEMEISTER G; HEINEMEYER E A; VON PRITZBUER E
AUTHOR ADDRESS: STAATLICHES MEDIZINALUNTERSUCHUNGSAMT, HALLESTR. 1, D-3300 BRAUNSCHWEIG.
JOURNAL: ZENTRALBL HYG UMWELTMED 193 (2). 1992. 106-113. 1992
CODEN: ZHUME
RECORD TYPE: Abstract
LANGUAGE: GERMAN

ABSTRACT: Both substances, brilliant green and bile, inhibit the growth of gram-positive bacteria in culture media and selectively enrich gram-negative bacteria. Therefore, the brilliant green-lactose-bile broth (BRILA) and the BRLA broth supplemented with tryptophan and methyl -umbelliferyl -.beta.-D- glucuronide (BRILA-MUG) contain brilliant green as well as bile. Because BRILA-MUG broth as a selective enrichment and differentiating medium of faecal coliform and total coliform bacteria, E. coli and coliforms , respectively, is recommended for testing samples of surface water according to the EC guidelines for bathing waters (no. 76/160 EWG), the question arose of the optimal combination of components in the BRILA-MUG broth. As the described

investigations show, the addition of buffer substances did not improve the culture properties of the BRILA-MUG broth. However, the original BRILA broth was improved by supplementing it with buffer substances such as CaCO3 or Na2HPO4. The same effect of culture improvement was obtained by removing brilliant green. This modification of BRILA broth is practically identic with the well-known MacConkey broth. On the other hand, the modification of omitting bile from the original BRILA broth causes a remarkable impairment of the culture properties lowering bacterial counts per ml by 3-5 log. The observations suggest that brilliant green inhibits both, gram-positive bacteria as well as the gram-negative Enterobacteriaceae. Therefore, it is a selective substance of doubtful usefulness.

47/7/21 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

11578172 EMBASE No: 2002149970
Diagnosis of Shiga toxin-producing Escherichia coli infections
Friedrich A.W.; Bielaszewska M.; Karch H.
Dr. H. Karch, Institut fur Hygiene, Universitatsklinikum Munster, Robert-Koch-Str. 41, 48149 Munster Germany
AUTHOR EMAIL: hkarch@uni-muenster.de
LaboratoriumsMedizin (LABORATORIUMSMEDIZIN) (Germany) 2002, 26/3-4 (183-190)
CODEN: LABOD ISSN: 0342-3026
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH; GERMAN
NUMBER OF REFERENCES: 57

Shiga toxin-producing E. coli (STEC) cause a spectrum of diseases ranging from watery diarrhea through hemorrhagic colitis to hemolytic uremic syndrome (HUS). Most STEC strains cannot be identified using conventional culture procedures. The exception is STEC O157:H7, which grows in colonies of typical morphology on certain selective culture media due to its inability to ferment sorbitol and to produce beta-D- glucuronidase . Sorbitol-fermenting E. coli O157:H- and STEC of the major non-O157 serotypes, of which most ferment sorbitol, cannot be distinguished on such media. Among various virulence factors, the ability to produce Shiga toxins is a common characteristic of all STEC. The E. coli Shiga toxin family includes two major types, Stx1 and Stx2, and several toxin variants termed Stx1c, Stx2c, Stx2d, Stx2e and Stx2f. The aim of the STEC laboratory diagnosis is the detection of Shiga toxins, which is achieved at three levels. At the first level, STEC screening is performed using culture on comercially available selective media and commercial enzyme immunoassays with enriched stool cultures. The detection of the toxin by an enzyme immunoassay must be followed by the isolation and characterization of the STEC isolate at the second level with the aim to confirm Shiga toxin production. The Shiga toxin colony immunoblot assay represents an effective, serotype independent, commercially available method for the isolation of STEC. In this method, Shiga toxin-positive colonies are identified using monoclonal antibodies. At the third step, subtyping of the STEC isolates is performed for epidemiological purposes, especially for STEC surveillance. This subtyping is usually done by National Reference Centers. In patients with HUS, the bacteriological detection of STEC may fail because the number of STEC in stool may be extremely low. In such

cases, selective enrichment using immunomagnetic separation is recommended. In case of negative stool culture, the detection of specific serum antibodies against lipopolysaccharides of the major HUS-associated STEC serogroups, e. g. O157, is recommended.

47/7/22 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE

10962035 EMBASE No: 2000434450
Rapid detection of Escherichia coli in water by a culture-based amperometric method
Perez F.; Tryland I.; Mascini M.; Fiksdal L.
L. Fiksdal, Dept. of Hydraulic/Environ. Eng., Norwegian Univ. of Sci./Technol., S.P. Andersensvei 5, N-7491 Trondheim Norway
AUTHOR EMAIL: liv.fiksdal@bygg.ntnu.no
Analytica Chimica Acta (ANAL. CHIM. ACTA) (Netherlands) 26 JAN 2001, 427/2 (149-154)
CODEN: ACACA ISSN: 0003-2670
PUBLISHER ITEM IDENTIFIER: S0003267000009843
DOCUMENT TYPE: Journal ; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 10

An amperometric culture-based method was developed for rapid detection of viable Escherichia coli in water. The bacteria were recovered by filtration and incubated in a selective medium , lauryl sulphate broth (LSB) supplemented with the substrate 4-aminophenyl-beta-D-galactopyranoside (4-APGal) at 44.5degreesC. The electrochemically active molecule 4-aminophenol (4-AP) was produced after hydrolysis of 4-APGal by the enzyme beta-galactosidase. 4-AP was measured by amperometry and was detected at a due concentration of E. coli . The time necessary for reaching that concentration was inversely related to the initial E. coli concentration of the sample. Environmental samples and suspensions of E coli IT1 were assayed. 4-AP was detected after 7.3 and 2.0 h in samples containing initial concentrations of E. coli IT1 of 4.5 and 4.5 x 10SUP6 cfu mlSUP-1, respectively. For environmental samples with initial E. coli concentrations of 1.0 and 2.0 x 10SUP3 cfu mlSUP-1, 4-AP were detected after 10 and 6.6 h, respectively. (C) 2001 Elsevier Science B.V.

47/7/23 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE

10637048 EMBASE No: 2000048927
Transient transformation of the rust fungus Puccinia graminis f. sp. tritici
Schillberg S.; Tiburzy R.; Fischer R.
S. Schillberg, Institut fur Biologie I, Botanik/Molekulargenetik, RWTH Aachen, Worringerweg 1, 52074 Aachen Germany
AUTHOR EMAIL: schillberg@biol.rwth-aachen.de
Molecular and General Genetics (MOL. GEN. GENET.) (Germany) 2000, 262/6 (911-915)
CODEN: MGGEA ISSN: 0026-8925

DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 32

The biotrophic rust fungus Puccinia graminis f. sp. tritici (Pgt) was transformed by particle bombardment. The promoter from the Pgt translation elongation factor lalpha (EF-lalpha) gene was fused to the bacterial marker genes hygromycin B phosphotransferase (hpt) and P- glucuronidase (GUS). Transformation constructs were introduced into uredospores of Pgt, an obligate pathogen of wheat, by biolistic bombardment. Uredospores transformed with the construct containing the hpt gene germinated and initiated branching on selective medium , indicating that they had acquired resistance to hygromycin B. However, transformants stopped growing 5 days after bombardment. GUS activity in uredospores and germlings was histochemically detected 4-16 h after bombardment. GUS expression was also obtained using the INF24 promoter from the bean rust fungus Uromyces appendiculatus, demonstrating that heterologous genes can be expressed in P. graminis under the control of regulatory sequences from closely related organisms.

47/7/24 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE

07891732 EMBASE No: 1999365244
Comparison of selective broth medium plus neomycinnalidixic acid agar and selective broth medium plus Columbia colistin -nalidixic acid agar for detection of group B streptococcal colonization in women
Dunne W.M. Jr.
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AUTHOR EMAIL: mdunnel@hfhs.org
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States) 1999, 37/11 (3705-3706)
CODEN: JCMID ISSN: 0095-1137
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 7

The combination of neomycin-nalidixic acid (NNA) agar and a selective broth medium (SBM) has recently been shown to improve the sensitivity of screening cultures for group B streptococcal (GBS) carriage in women. Because of the relatively high cost of NNA agar, a study was initiated to determine whether Columbia colistin -nalidixic acid (CNA) agar would be an equally sensitive, more economical alternative. A total of 580 cervical-vaginal and/or rectal specimens submitted for detection of GBS were included in the study. Each was plated onto NNA and CNA agar and then inoculated into SBM. GBS were recovered from 95 of 580 (16.4%) specimens, including 61 isolates from CNA, 74 from NNA, 73 from the CNA-SMB combination, and 86 from the NNA- SMB tandem. Of those, 22 isolates were recovered on NNA but not CNA, 9 were cultured on CNA but not NNA, 52 were isolated on both media, and 12 were recovered from subcultures of SBM only. The overall sensitivity of CNA alone (64.2%) was statistically significantly less than that of NNA agar (77.9%), as was the sensitivity of combination of CNA plus SBM (76.8%) compared to that of NNA plus SBM (90.5%). Based on these findings, CNA should not be considered an

acceptable alternative to NNA for the detection of GBS colonization in women despite potential cost savings.

47/7/25 (Item 5 from file: 73)
DIALOG(R)File 73:EMBASE

07697545 EMBASE No: 1999180012
Molecular detection of bacterial indicators in cosmetic/pharmaceuticals and raw materials
Jimenez L.; Ignar R.; Smalls S.; Grech P.; Hamilton J.; Bosko Y.; English D.
L. Jimenez, Block Drug Company, 260 Prospect Avenue, Hackensack, NJ 07601 United States
Journal of Industrial Microbiology and Biotechnology (J. IND. MICROBIOL. BIOTECHNOL.) (United Kingdom) 1999, 22/2 (93-95)
CODEN: JIMBF ISSN: 1367-5435
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 10

PCR assays were compared with standard microbiological methods for rapid detection of the United States Pharmacopoeia (USP) bacterial indicators in artificially contaminated samples of raw materials and cosmetic/pharmaceutical products. DNA primers containing the specific sequences of the uidA gene of the P- glucuronidase enzyme for Escherichia coli, the membrane lipoprotein gene oprL for Pseudomonas aeruginosa, and the 16S ribosomal gene for Staphylococcus aureus were used for detection in the PCR reaction. Contaminated samples were incubated for 24 h at 35degreeC. After incubation in broth media with and without 4% Tween 20, samples were streaked on selective growth media . After 5-6 days, all microbial indicators were morphologically and biochemically identified using standard methods while detection and identification by the PCR-based assays was completed within 27-30 h. Rapid PCR detection of E. coli, S. aureus, and P. aeruginosa will allow a faster quality evaluation and release of raw materials and cosmetic/pharmaceutical products sensitive to microbial contamination.

47/7/26 (Item 6 from file: 73)
DIALOG(R)File 73:EMBASE

07225404 EMBASE No: 1998117785
The usefulness of a selective disk- broth media for the detection of group B streptococci in the vagina
UTILIDAD DE UN MEDIO SELECTIVO DISCO-CALDO PARA LA DETECCION DE ESTREPTOCOCO DEL GRUPO B EN LA VAGINA
Bosch J.; Murillo S.; Rico M.; Salgado M.
Dr. J. Bosch, Laboratorio de Microbiologia, Hospital Casa de Maternitat, Sabino de Arana 1, 08028 Barcelona Spain
Enfermedades Infecciosas y Microbiologia Clinica (ENFERM. INFECC. MICROBIOL. CLIN.) (Spain) 1998, 16/2 (83-84)
CODEN: EIMCE ISSN: 0213-005X
DOCUMENT TYPE: Journal; Article
LANGUAGE: SPANISH SUMMARY LANGUAGE: SPANISH; ENGLISH

NUMBER OF REFERENCES: 11

Background: The detection of pregnant group B streptococci (GBS) carriers allows intrapartum administration of antibiotic prophylaxis to these women and prevents perinatal infection by this microorganism. The aim of this study was to determine the usefulness of a selective media to detect GBS in the vagina based on the disk-broth method. Material and methods: One thousand six hundred five vaginal swabs were seeded in blood agar with colistin and nalidixic acid (NDA) and in a selective disk- broth tube consisting of 2 ml of Mueller-Hinton broth with 5% serum and a disk of 30 mug of amikacin which was reseeded at 24 hours of incubation in blood agar with NDA. Results: GBS was isolated by either of the two methods in 209 samples (13.0%): in 160 (9.9%) in the initial dish of blood agar with NDA and in 205 (12.7%) in the subculture of the selective disk- broth media . Conclusions: The selective disk- broth media used in this study is a simple method which allows detection of GBS in vaginal samples of women with GBS cultures in a negative agar blood dish.

47/7/27 (Item 7 from file: 73)
DIALOG(R)File 73:EMBASE

06967639 EMBASE No: 1997252237
Detection of vancomycin-resistant enterococci in fecal samples by PCR
Satake S.; Clark N.; Rimland D.; Nolte F.S.; Tenover F.C.
F.C. Tenover, Nosocomial Pathogens Lab. Branch, Centers for Dis. Ctrl./Prevention, 1600 Clifton Rd., NE, Atlanta, GA 30333 United States
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States) 1997, 35/9 (2325-2330)
CODEN: JCMID ISSN: 0095-1137
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 31

Surveillance cultures for vancomycin-resistant enterococci (VRE) are time-consuming and expensive for the laboratory to perform. Therefore, we investigated the use of PCR as an alternative method of detecting and identifying VRE directly in fecal samples. PCR primers directed to vanA, vanB, vanC1, vanC2, and enterococcal ligase genes were used to detect and identify VRE in fecal material obtained by rectal or perirectal swabbing. Although PCR-inhibitory substances were present in DNA prepared directly from the swabs, the inhibitory substances could be reduced by processing the nucleic acid with two commercially available DNA preparation columns. Fecal material from 333 swabs was cultured on several selective agar media before and after broth enrichment. DNA was extracted from the fecal material and was analyzed by PCR. By using all four primer sets, only 59 (67.8%) of the samples were positive for vanA. However, after retesting the negative samples with only the vanA primer set, 77 (88.5%) of 87 specimens that were culture positive for Enterococcus faecium containing vanA were positive by PCR. One specimen was PCR positive for the vanA gene but culture negative for enterococci. The specificity of the vanA assay was 99.6%. PCR analysis of enrichment broth samples with all four primers sets after 15 to 18 h of incubation detected 74 (85.1%) of the 87 culture-positive specimens. The specificity of the vanA assay after the enrichment step was 100%. No vanB- containing enterococci were recovered by culture. Since 16 samples can be tested by PCR in 4 h (including

electrophoresis), identification of VRE is possible within 8 h of specimen submission at a cost of approximately $10.12/assay. Thus, PCR may be a cost-effective alternative to culture for surveillance of VRE in some hospitals.

47/7/28 (Item 8 from file: 73)
DIALOG(R)File 73:EMBASE

05964198 EMBASE No: 1994372262
Rapid identification of micro-organisms from urinary tract infections by beta- glucuronidase , phenylalanine deaminase, cytochrome oxidase and indole tests on isolation media
Giammanco G.; Pignato S.
Ist. d'Igiene/Medicina Preventiva, Universita di Catania, Via Biblioteca 4,95124 Catania Italy
Journal of Medical Microbiology (J. MED. MICROBIOL.) (United Kingdom) 1994, 41/6 (389-392)
CODEN: JMMIA ISSN: 0022-2615
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Two commercially available media recommended for the isolation and rapid identification of Escherichia coli from urinary tract infections were supplemented with L-phenylalanine and L-tryptophan. The non- selective medium proved suitable for the direct detection of lactose fermentation, beta- glucuronidase and phenylalanine deaminase activities, indole production and the oxidase test. It was highly efficient in making a presumptive identification at species level of the most common gram-negative urinary pathogens, E. coli, Proteus mirabilis and Pseudomonas aeruginosa, that account for c. 85% of all urinary isolates. Among the gram-positive isolates, most colonies were non-fluorescent and could be separated into staphylococci and enterococci on the basis of the catalase test. Fluorescent colonies were found to be Staphylococcus haemolyticus isolates, 61% of which were fluorescent. The selective medium proved suitable for the same biochemical tests, with the exception of indole, which was not visible against the red colour of the medium. Therefore, the differentiation of P. mirabilis from other Proteus-Providencia species was impossible on this medium.

47/7/29 (Item 9 from file: 73)
DIALOG(R)File 73:EMBASE

05849955 EMBASE No: 1994261413
Rapid detection of vancomycin-resistant enterococci
Edberg S.C. ; Hardalo C.J.; Kontnick C.; Campbell S.
Department of Laboratory Medicine, Yale University School of Medicine, Box 208035,New Haven, CT 06520-8035 United States
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States) 1994, 32/9 (2182-2184)
CODEN: JCMID ISSN: 0095-1137
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Campylobacter blood agar with clindamycin incubated in 6% COinf 2 served as a medium to both screen for vancomycin resistance and select for presumptive enterococci. Colonies that grew on the medium were specifically identified as enterococci within 30 min by the pyroglutamyl-beta-naphthylamide and rapid bile esculin tests. The combination of a selective medium plus rapid enzyme substrate tests offered an inexpensive means to enumerate vancomycin- resistant enterococci from specimens by using readily available reagents.

47/7/30 (Item 10 from file: 73)
DIALOG(R)File 73:EMBASE

05559461 EMBASE No: 1993327561
New medium for the simultaneous detection of total coliforms and Escherichia coli in water
Brenner K.P.; Rankin C.C.; Roybal Y.R.; Stelma Jr. G.N.; Scarpino P.V.; Dufour A.P.
Envtl. Monitoring Systems Laboratory, U. S. Envtl. Protection Agency,Cincinnati, OH 45268 United States
Applied and Environmental Microbiology (APPL. ENVIRON. MICROBIOL.) (United States) 1993, 59/11 (3534-3544)
CODEN: AEMID ISSN: 0099-2240
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A new membrane filter agar medium (MI agar) containing a chromogen, indoxyl-beta-D-glucuronide, and a fluorogen, 4-methylumbelliferyl-beta-D-galactopyranoside, was developed to simultaneously detect and enumerate Escherichia coli and total coliforms (TC) in water samples on the basis of their enzyme activities. TC produced beta-galactosidase, which cleaved 4-methylumbelliferyl-beta-D-galactopyranoside to form 4-methylumbelliferone, a compound that fluoresced under longwave UV light (366 nm), while E. coli produced beta-glucuronidase, which cleaved indoxyl-beta-D-glucuronide to form a blue color. The new medium TC and E. coli recoveries were compared with those of mEndo agar and two E. coli media, mTEC agar and nutrient agar supplemented with 4- methylumbelliferyl -beta-D- glucuronide , using natural water samples and spiked drinking water samples. On average, the new medium recovered 1.8 times as many TC as mEndo agar, with greatly reduced background counts (<=7%). These differences were statistically significant (significance level, 0.05). Although the overall analysis revealed no statistically significant difference between the E. coli recoveries on MI agar and mTEC agar, the new medium recovered more E. coli in 16 of 23 samples (69.6%). Both MI agar and mTEC agar recovered significantly more E. coli than nutrient agar supplemented with 4-methylumbelliferyl -beta-D- glucuronide . Specificities for E. coli, TC, and noncoliforms on MI agar were 95.7% (66 of 69 samples), 93.1% (161 of 173 samples), and 93.8% (61 of 65 samples), respectively. The E. coli false-positive and false-negative rates were both 4.3%. This selective and specific medium , which employs familiar membrane filter technology is used to analyze several types of water samples, is less expensive than the liquid chromogen and fluorogen media and may be useful for compliance monitoring of drinking water.

47/7/31 (Item 11 from file: 73)

03637784 EMBASE No: 1988087220
New plate medium for screening and presumptive identification of gram-negative urinary tract pathogens
Thaller M.C.; Berlutti F.; Dainelli B.; Pezzi R.
Istituto di Microbiologia, Universita 'La Sapienza', 00185 Rome Italy
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States)
1988, 26/4 (791-793)
CODEN: JCMID ISSN: 0095-1137
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A new selective , differential plating medium to screen the common gram-negative urinary tract pathogens is described. The medium combines adonitol fermentation, phenylalanine deaminase, and beta- glucuronidase tests and allows the indole and cytochrome oxidase tests to be performed directly from the plates. High-level agreement with individual conventional tests was recorded in comparative studies with 504 cultures of gram-negative rods. There was 100% agreement, except for the Providencia spp. indole spot test (61.6% agreement). Adonitol fermentation by Providencia species could not be determined. Escherichia coli, Klebsiella pneumoniae, Proteus mirabilis, and Pseudomonas aeruginosa were identified with a high efficiency (100, 85.7, 83.5, and 100%, respectively) without further testing. There was 96% overall agreement for the 267 infected urine samples tested.

47/7/32 (Item 12 from file: 73)

01041239 EMBASE No: 1978169577
A method for the rapid isolation of Listeria monocytogenes from infected material
Mavrothalassitis P.
Inst. Microbiol., Univ. Laussanne Switzerland
Journal of Applied Bacteriology (J. APPL. BACTERIOL.) (United Kingdom)
1977, 43/1 (47-52)
CODEN: JABAA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Two media, one for enrichment and the other for differentiation of Listeria monocytogenes, are described and a method is proposed for the selective isolation of this bacterium from material containing a mixed bacterial flora such as feces, vaginal swabs, etc. Addition of potassium dichromate, chromium trioxide, thionine, nalidixic acid and amphotericin B to Todd-Hewitt Broth (BBL) made a satisfactory enrichment broth in which good selective growth of L. monocytogenes was obtained without notable damage to cells. The differentiation agar was Trypticase Soy Agar (BBL) supplemented with gallocyanin, pyronin and nalidixic acid. On this medium L. monocytogenes colonies, when viewed by the Henry's oblique transillumination technique, were blue in contrast to colonies of other bacterial species which were pink or red. Trials with experimentally infected materials showed that L. monocytogenes could be recovered from

feces infected with as few as 20 L. monocytogenes cells/g. All common contaminants, with the exception of a few strains of Streptococcus faecalis , were inhibited.

47/7/33 (Item 1 from file: 351)
DIALOG(R)File 351:Derwent WPI

014284519
WPI Acc No: 2002-105220/200214
Composition for detection of first generation target microbes in a sample comprising an indicator which is the preferred nutrient for the target microbes
Patent Assignee: EDBERG S C (EDBE-I)
Inventor: EDBERG S C
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6329166	B1	20011211	US 86880305	A	19860630	200214	B
			US 89349653	A	19890510		
			US 91752996	A	19910903		
			US 92824893	A	19920122		
			US 93149706	A	19931109		
			US 94323064	A	19941014		
			US 95465010	A	19950605		
			US 98114464	A	19980713		

Priority Applications (No Type Date): US 89349653 A 19890510; US 86880305 A 19860630; US 91752996 A 19910903; US 92824893 A 19920122; US 93149706 A 19931109; US 94323064 A 19941014; US 95465010 A 19950605; US 98114464 A 19980713
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6329166	B1		6	C12Q-001/04	CIP of application US 86880305
					Cont of application US 89349653
					Cont of application US 91752996
					Cont of application US 92824893
					Cont of application US 93149706
					Cont of application US 94323064
					Div ex application US 95465010
					CIP of patent US 4925789
					Cont of patent US 5429933
					Div ex patent US 5780259

Abstract (Basic): US 6329166 B1
NOVELTY - A composition for detecting the presence or absence of a target microbe in an environmental or biological sample comprises an indicator which is the preferred nutrient for the target microbe.
DETAILED DESCRIPTION - A composition for detecting the presence or absence of a target microbe in an environmental or biological sample comprises medium lacking a gelling agent, comprising:
(a) vitamin, amino acid, element and salt ingredients to allow viability and log phase reproduction of the target microbes in the presence of a nutrient-indicator, and to aid the target microbes through the lag phase and into log phase of growth in the sample; and
(b) a nutrient-indicator comprising a beta galactosidase substrate

and/or a beta-glucuronidase substrate in an amount sufficient to support log phase growth of the target microbes until a detectable characteristic signal is produced in the medium during the log phase growth.

The nutrient-indicator is incapable of supporting continued logarithmic growth of any viable non-target microbes in the medium to produce a detectable characteristic signal. The nutrient-indicator alters a detectable characteristic of the medium metabolized by the target microbes so as to detect the presence or absence of the target microbes in the sample). The ingredients in (a) and the nutrient-indicator are chosen such that growth of non-target microbes does not interfere with growth of the target microbes.

USE - For detection of first generation target microbes in a sample, e.g. coliform or E.coli microbes.

ADVANTAGE - The testing media does not have to be kept sterile, and the testing procedure does not have to be performed in a sterile environment.

pp; 6 DwgNo 0/0

Derwent Class: B04; D16

International Patent Class (Main): C12Q-001/04

47/7/34 (Item 2 from file: 351)

DIALOG(R)File 351:Derwent WPI

013085138

WPI Acc No: 2000-257010/200022

Increasing the growth rate of bacteria or fungi especially to increase production of genetically engineered products

Patent Assignee: EDBERG S C (EDBE-I)

Inventor: EDBERG S C

Number of Countries: 082 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200014268	A1	20000316	WO 99US20491	A	19990907	200022	B
AU 9959110	A	20000327	AU 9959110	A	19990907	200032	

Priority Applications (No Type Date): US 98149203 A 19980908

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200014268	A1	E	65	C12Q-001/02	

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9959110	A	C12Q-001/02	Based on patent WO 200014268

Abstract (Basic): WO 200014268 A1

NOVELTY - A method (A) of increasing the metabolic rate of bacteria or fungi is new and comprises growing the bacteria in the presence of two different plant growth hormones.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method (A) of increasing the growth rate of bacteria of

fungi;

(2) a method (B) of increasing the amount of a genetically engineered product produced by a genetically engineered bacterial or fungal cell;

(3) a composition comprising a bacterial growth medium in combination with a plant growth hormone and a bacterial resuscitator; and

(4) a composition comprising a fungal growth medium in combination with a plant growth hormone and a fungal resuscitator.

USE - The new methods are used to increase the metabolic rate or growth rate of bacteria or fungi (claimed). This may be used to increase the production of commercially useful genetically engineered products (claimed). The methods may also be used to decrease the time required both for detection of bacteria or fungi in a biological sample and the determination of antibiotic resistance of bacteria or fungi in a sample (claimed). In addition the methods may be used to increase the efficiency of production of products whose production require bacteria or fungi to be present.

ADVANTAGE - The new methods decrease the time required for diagnostic tests involving detection of bacteria or fungi.

pp; 65 DwgNo 0/0

Derwent Class: C03; D16

International Patent Class (Main): C12Q-001/02

International Patent Class (Additional): C12N-001/14; C12N-001/16; C12N-001/20; C12N-001/38

47/7/35 (Item 3 from file: 351)

DIALOG(R)File 351:Derwent WPI

011996144

WPI Acc No: 1998-413054/199835

Medium specific for target microbes - includes a nutrient indicator which is metabolised only by the target microbe, resulting in, e.g., a colour change

Patent Assignee: EDBERG S C (EDBE-I)

Inventor: EDBERG S C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5780259	A	19980714	US 86880305	A	19860630	199835 B
			US 89349653	A	19890510	
			US 91752996	A	19910903	
			US 92824893	A	19920122	
			US 93149706	A	19931109	
			US 94323064	A	19941014	
			US 95465010	A	19950605	

Priority Applications (No Type Date): US 89349653 A 19890510; US 86880305 A 19860630; US 91752996 A 19910903; US 92824893 A 19920122; US 93149706 A 19931109; US 94323064 A 19941014; US 95465010 A 19950605

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5780259	A		6	C12Q-001/04	CIP of application US 86880305
					Cont of application US 89349653
					Cont of application US 91752996

Cont of application US 92824893
Cont of application US 93149706
Cont of application US 94323064
CIP of patent US 4925789
Cont of patent US 5429933

Abstract (Basic): US 5780259 A

Target microbe (TM)-specific medium, for detecting the presence or absence of a TM in an environmental or biological sample, comprises: (a) amounts of vitamins, amino acids, elements and salt ingredients sufficient to (i) allow viability and log phase growth of the TM in the presence of a nutrient-indicator (NI) and (ii) to aid the TM through lag phase and into log phase growth in the sample; and (b) a NI in an amount sufficient to support log phase growth of the TM of the sample until a detectable characteristic signal is produced in the medium/sample mixture during the log phase growth. The NI is incapable of supporting continued logarithmic growth of an viable non-target microbes (NTMs) in the medium/sample mixture to produce a detectable characteristic signal. The NI alters a detectable characteristic of the medium/sample mixture metabolised by the TM, so as to confirm the presence of the TM in the sample. The medium lacks a gelling agent so that when the medium is mixed with a liquefied sample, a liquid is formed. Components (a) and (b) are chosen so that growth of NTMs does not interfere with growth of the TM.

USE - The medium may be used for detection of microbes,e.g., bacteria, in samples such as water or food.

ADVANTAGE - Only the presence of the TM in the sample can result in significant metabolism of the NI to cause the colour or other characteristic change.

Dwg.0/0

Derwent Class: B04; D16; J04
International Patent Class (Main): C12Q-001/04
International Patent Class (Additional): C12Q-001/10

47/7/36 (Item 4 from file: 351)
DIALOG(R)File 351:Derwent WPI

011728350
WPI Acc No: 1998-145260/199813
Detection of e.g., vancomycin-resistant Enterococci - include specific nutrient indicators which only the target microbe can metabolise and use for growth
Patent Assignee: IDEXX LAB INC (IDEX-N)
Inventor: CHEN C; EDBERG S C
Number of Countries: 024 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9804674	A1	19980205	WO 97US12806	A	19970724	199813	B
AU 9736720	A	19980220	AU 9736720	A	19970724	199828	
EP 954560	A1	19991110	EP 97933566	A	19970724	199952	
			WO 97US12806	A	19970724		
US 6355449	B1	20020312	US 96690196	A	19960726	200221	
			US 2000597951	A	20000620		

Priority Applications (No Type Date): US 96690196 A 19960726; US 2000597951

A 20000620
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9804674	A1	E	47	C12M-001/20	
Designated States (National): AU BR CA JP MX					
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
AU 9736720	A			C12M-001/20	Based on patent WO 9804674
EP 954560	A1	E		C12M-001/20	Based on patent WO 9804674
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6355449	B1			C12Q-001/20	Cont of application US 96690196

Abstract (Basic): WO 9804674 A

A medium for sequentially detecting at least 2 bacterial enzymes comprises: (a) a first nutrient indicator which provides a first detectable signal when cleaved by a first bacterial enzyme, and (b) a second nutrient indicator which provides an intermediate molecule when cleaved by a second bacterial enzyme. The intermediate molecule provides a second detectable signal upon reaction with a developing agent.

The first enzyme is beta -glucosidase. The first nutrient indicator is resofuran- beta -D-glucopyranoside, o-nitrophenyl- beta -D-glucopyranoside, p-nitrophenyl- beta -D-glucopyranoside, 5-bromo-4-chloro-3-indoxyl- beta -D-glucopyranoside, 6-bromo-2-naphthyl- beta -D-glucopyranoside, Rose- beta -D-glucopyranoside, VQM-Glc(2-(2-[4-(beta -D-glucopyranosyloxy)-3-methoxyl] vinyl)-1-methyl-quinolinium iodide, VBZTM-Gluc(2-(2-[4-(beta -D-glucopyranosyloxy)-3-methoxylphenyl]vinyl)-3- methylbenzothiazolium iodide or 4-methylumbelliferyl- beta -D-glucopyranoside, etc. The second enzyme is pyrrolidinyl arylamidase. The intermediate molecule alters the colour of the medium upon reaction with a colour developing agent. The second nutrient indicator is pyroglutamic acid- beta -naphthylamide. The colour developing agent is p-dimethylaminocinnamaldehyde. The selective agent is selected from amikacin sulphate, polymyxin B, bacitracin, clindamycin, cefotaxime and amphotericin B.

USE - The medium may be used for specific detection of target microbes in clinical samples, especially for detection of vancomycin-resistant Enterococci, which are one of the most serious threats to human health.

ADVANTAGE - The nutrient indicators produce detectable signals only if they are hydrolysed by the Enterococci-specific enzymes, including beta -glucosidase and pyrrolidinyl arylamidase. The media allow detection of 100-1000 cells/ml (in < 18 hours) or 1-10 cells/ml (in < 24 hours) of target microbes, without cross-reactivity from 107 cells of non-target microbes. The detection process is quicker than prior art methods and need not be carried out by highly skilled technologists.

Dwg.0/0

Derwent Class: B04; D16
International Patent Class (Main): C12M-001/20; C12Q-001/20
International Patent Class (Additional): C12P-033/10; C12Q-001/10; C12Q-001/14; C12Q-001/34; C12Q-001/54; G01N-033/571

47/7/37 (Item 5 from file: 351)
DIALOG(R)File 351:Derwent WPI

010352562
WPI Acc No: 1995-253876/199533

Specific medium for detection of target microorganisms in environmental or biological samples - without use of sterile conditions

Patent Assignee: EDBERG S C (EDBE-I)
Inventor: EDBERG S C

Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5429933	A	19950704	US 86880305	A	19860630	199533 B
			US 89349653	A	19890510	
			US 91752996	A	19910903	
			US 92824893	A	19920122	
			US 93149706	A	19931109	
			US 94323064	A	19941014	

Priority Applications (No Type Date): US 89349653 A 19890510; US 86880305 A 19860630; US 91752996 A 19910903; US 92824893 A 19920122; US 93149706 A 19931109; US 94323064 A 19941014
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5429933	A		6	C12Q-001/04	CIP of application US 86880305
					Cont of application US 89349653
					Cont of application US 91752996
					Cont of application US 92824893
					Cont of application US 93149706
					CIP of patent US 4925789

Abstract (Basic): US 5429933 A

Specific medium (I) for detecting the presence or absence of a target microbe in a liquified environmental or biological sample comprises: (a) vitamin, amino acid, element and salt ingredients to allow log phase reproduction of the target microbe in the presence of a nutrient indicator, assisting the microbe through the bag phase; (b) an antibiotic to repress non-target microbes; (c) a nutrient indicator which is metabolised solely during the log phase of the target microbe and produces a detectable characteristic change which confirms the presence or absence of the target microbe, and which does not support log phase growth of non-target microbes. (I) contains no gelling agent. Media specific for the detection of Escherichia coli and coliform bacteria are claimed.

USE/ADVANTAGE - (I) are useful for screening biological and environmental samples for a particular microbe e.g. E. coli or a taxonomic class of microbes e.g. Gram-negative bacteria. Because each medium is specific to each target microbe, the testing procedure need not be sterile, and the occurrence of false-negative and false positive results is substantially reduced. When the nutrient indicator contains a chromogen which is released on utilisation of the nutrient, an easily observable colour change results. The presence of an accelerator reduces sample testing time.

Dwg.0/0

Derwent Class: B04; D13; D15; D16; J04
International Patent Class (Main): C12Q-001/04
International Patent Class (Additional): C12Q-001/10

47/7/38 (Item 6 from file: 351)
DIALOG(R)File 351:Derwent WPI

007396157
WPI Acc No: 1988-030092/198805
Detecting microbes in a sample - using specific medium contg. nutrient-indicator which is metabolised by the target microbe
Patent Assignee: EDBERG S C (EDBE-I)
Inventor: EDBERG S C
Number of Countries: 020 Number of Patents: 013
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 254771	A	19880203	EP 86117754	A	19861219	198805	B
JP 63014699	A	19880121	JP 8741220	A	19870224	198809	
AU 8774795	A	19880107				198810	
DK 8703326	A	19871231				198811	
BR 8703173	A	19880308				198815	
PT 84519	A	19880701				198831	
US 4925789	A	19900515	US 86880305	A	19860630	199024	
CA 1288322	C	19910903				199140	
EP 254771	B1	19921202	EP 86117754	A	19861219	199249	
DE 3687232	G	19930114	DE 3687232	A	19861219	199303	
			EP 86117754	A	19861219		
ES 2044835	T3	19940116	EP 86117754	A	19861219	199407	
JP 95004272	B2	19950125	JP 8741220	A	19870224	199508	
EP 254771	B2	20000202	EP 86117754	A	19861219	200011	

Priority Applications (No Type Date): US 86880305 A 19860630
Cited Patents: 6.Jnl.Ref; A3...8834; DE 3419327; EP 25467; EP 59645; GB 2005410; No-SR.Pub; US 3496066; US 3870601; US 4129483
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 254771	A	E			
Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE					
EP 254771	B1	E	14	C12Q-001/04	
Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE					
DE 3687232	G			C12Q-001/04	Based on patent EP 254771
ES 2044835	T3			C12Q-001/04	Based on patent EP 254771
JP 95004272	B2		9	C12Q-001/04	Based on patent JP 63014699
EP 254771	B2	E		C12Q-001/04	
Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE					

Abstract (Basic): EP 254771 A

A specific medium for combination with a specimen sample to determine the presence or absence of a target microbe in the specimen sample, comprises operative amts. of ingredients needed to support growth of the target microbe and a nutrient-indicator (I) which is the only nutrient in the medium which can be metabolised by the target microbe, (I) including a metabolisable moiety and a sample-altering moiety, the latter of which is released only when (I) is metabilised by the target microbe, so that a sensible characteristic of the sample is altered.

Abstract (Equivalent): EP 254771 B

A specific medium for combination with a specimen sample to determine the presence or absence of a target microbe in said specimen

sample, said medium comprising: (a) ingredients for supporting growth of said target microbe; (b) a nutrient-indicator including a moiety metabolisable by said target microbe and a sample-altering moiety which is released only when said nutrient-indicator is metabolised by said target microbe and provides alteration of a sensible characteristic of said specimen sample; (c) said ingredients and said nutrient-indicator being selected such that significant reproductive growth of only said target microbe takes place, said nutrient-indicator being a nutrient which is preferred by said target microbe and cannot significantly be metabolised by other viable microbes in said specimen sample.

(Dwg.0/0)

Abstract (Equivalent): US 4925789 A

Detection of target microbes in samples without the need for a prior microbe-growth step comprises essential vitamins and growth support components plus a nutrient which is the only nutrient which can be metabolised by the target microbe. It cannot be metabolised by any other microbes in the sample and it contains a sample-altering moiety which is released on metabolisation by the target microbe and indicates that it is present. Pref. an antibiotic is first added to the sample to prevent the non-target microbes from metabolising the nutrient-indicator. USE - For detecting microbes in food and water.

(9pp)

Derwent Class: D16; J04
International Patent Class (Main): C12Q-001/04
International Patent Class (Additional): C12N-001/20; C12Q-001/34; C12Q-001/37; C12R-001/19; G01N-033/52; C12Q-001/04; C12R-001-19
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